FASEB CURRICULA VITA J35

FASEB Curricula Vita 4/16/73

FASEB FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY

9650 ROCKVILLE PIKE • BETHESDA, MARYLAND 20014

TELEPHONE: 301 — 530-7000 • CABLE ADDRESS: FASEB, WASHINGTON, D. C.

April 16, 1973

135

MEMORANDUM

To: Alan T. Spiher, GRAS Review Branch, Division of Petitions Processing, Bureau of Foods, Food & Drug Administration, Washington, D.C. 20204

From: George W. Irving, Jr.

Subject: Curricula Vita for SCOGS, Consultants and Staff of LSRO/FASEB Assigned to GRAS Substances Evaluation Project

In response to your request of several weeks ago we are sending copies of the curricula vitae for the members of SCOGS, ad hoc consultants and the staff of LSRO/FASEB assigned to the GRAS substances evaluation project.

GWI:cap

Enclosures FASEB Curricula Vita

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May 1972 FASEB STAFF

Curriculum Vitae of
Charles Jelleff Carr

Personal

Born: March 27, 1910, Baltimore, Maryland

Married: Mary Agnes McGrath

Children: Daniel Jelleff, Noel Edward, Joseph Barney

Home Address: 6010 River Meadow Drive
Columbia, Maryland 21045
Home Phone: (301) 730-6066

Washington Address: Federation of American Societies for Experimental Biology
9650 Rockville Pike
Bethesda, Maryland 20014
Phone: (301) 530-7030

Education

University of Maryland — B.S. 1933

University of Maryland
School of Medicine. Major: Pharmacology — M.S. 1934 Ph.D. 1937

Professional Appointments

Director, Life Sciences Research Office, Federation of American Societies for Experimental Biology, 1967 -

Adjunct Professor of Pharmacology, School of Pharmacy, University of Maryland, Baltimore, Maryland 1969 -

Chief, Scientific Analysis Branch, Life Sciences Division, Army Research Office, Office of the Chief of Research and Development, Department of the Army, 1963 - 1967

Chief, Pharmacology Unit, Psychopharmacology Service Center, National Institute of Mental Health, Bethesda, Maryland, 1957 - 1963.

Professor of Pharmacology, School of Pharmacy, Purdue University, Lafayette, Indiana, 1955 - 1957.

Professor of Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1950 - 1955.

Associate Professor of Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1939 - 1950.

Assistant Professor of Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1937 - 1939.

Instructor of Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1935 - 1937.

Teaching Assistant of Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1934 - 1935.

Emerson Fellow in Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1933.

Research Assistant to Chairman, Committee on Inorganic Chemicals, United States Pharmacopeia, Revision XI, 1932.

Invited Lectureships

Adjunct Professor of Pharmacology, Department of Pharmacology, School of Medicine, University of Maryland, 1957 - 1967.

Special Lecturer in Pharmacology, Schools of Medicine and Dentistry, Georgetown University, Washington, D. C., 1965.

Special Lecturer on Pharmacological Research, School of Pharmacy, George Washington University, Washington, D. C., 1960 - 1963.

Lecturer in Pharmacology, School of Nursing, St. Joseph's Hospital, Baltimore, Maryland, 1939 - 1941.

Research Experience

Master's Thesis: "Metabolism of Dulcitol and Dulcitan."
Doctor's Thesis: "Metabolism of the Sugar Alcohols."

From 1931 through 1946 reports were published with Krantz on substitute carbohydrates in the diet of man and animals. Research publications in this field number 40, and include collaborative studies with other investigators on carbohydrate chemistry, the physical properties of solutions of the sugar alcohols, and the utilization of the polyols by various microorganisms. These studies in carbohydrate metabolism were designed to explore the metabolic fate of rare sugars or sugar derivatives in animals and man.

Beginning in 1938, one of the major research projects in the Department of Pharmacology, University of Maryland, was the development of a new series of volatile general anesthetics. The cyclopropyl ethers were introduced as anesthetics for man as a result of these studies. Later the broad field of inhalation anesthetics was explored with the discovery of the anesthetic properties of cyclobutane, vinyl ethyl ether, and krypton. This work laid the foundations for the current interest in the aliphatic halogenated ethers as anesthetics and convulsant agents. Participation in these researches led to the publication of 46 collaborative research reports in this field.

The investigation of the mechanism of action of the organic nitrates and nitrites on vascular tissues was started in 1937 and evolved from an early interest in the halogenated ethylenes. The work suggested the synthesis of new types of aliphatic nitrites and nitrates and the study of the transphosphlorylating enzymes of vascular tissue. These studies were reported in 27 publications.

In 1943-1945 participated in research work conducted for the U. S. Army and Navy on the toxicology of chemical warfare agents and protective measures for military and civilian personnel; the treatment of bunker-oil burns; and later, the toxicology of high energy borane fuels. These classified studies were made in the Department of Pharmacology, School of Medicine, University of Maryland, and were not published.

In collaboration with graduate students and associates, subsequent publications have been concerned with drug detoxication mechanisms, techniques for the evaluation of central nervous system depressant drugs, reviews of the field of psychopharmacology, and the neurophysiology and neuropharmacology of the bacterial toxins. Nine publications.

For five years conducted the analysis of specific problems in the biomedical sciences to plan and evaluate research programs directed by the Life Sciences Division, Office of the Chief of Research and Development, a part of the Department of the Army General Staff. Present position is director of the office that provides advisory, consultative, and evaluative services on scientific problems of biomedical significance for scientific organizations and federal agencies. Technical reports prepared include identification of promising areas for application of physiochemical techniques in solving biological problems, the application of new knowledge in treating ionizing radiation injury, the radiological health aspects of agents modifying the biological effects of radiation, the pharmacology and toxicology of vision in the soldier, a study of vision as related to dark adaptation and night vision, new methods of measuring the cerebral circulation, and the biomedical effects of marihuana on man in the military environment. Fifteen reports prepared since 1967.

Professional Experience

I consider myself primarily a teacher with experience in pharmacology, medicinal chemistry, and the biomedical sciences. The 20 years of teaching medical students culminated in co-authorship of the widely used text Pharmacologic Principles of Medical Practice now in its 7th edition, with Portuguese and Spanish translations.

Member: Joint Food and Drug Administration - National Institute of Mental Health Psychotomimetic Agents Advisory Committee, 1970 - 1973.

Member: Pharmacology and Toxicology Training Committee, National Institute of General Medical Sciences, National Institutes of Health, 1964 - 1968.

Participant in Food and Drug Administration sponsored colloquium "Man's Health and his Environment." University of Illinois, 1968. Presented paper, "Man and His Drugs."

Participant in Second International Symposium on Action Mechanism and Metabolism of Psychoactive Drugs Derived from Phenothiazine and Structurally Related Compounds, Paris, France, October 1967.

Brookings Institution Conference for Federal Science Executives, Williamsburg, Virginia, May 1965.

Honors and Fellowships

Doctor of Science, Honorary, Purdue University, Lafayette, Indiana, 1964.
U. S. Army Meritorious Civilian Service Award, 1968.
U. S. Army Meritorious Civilian Service Award, 1965.
Distinguished Achievement Award, Omicron Chapter, Rho Chi Society, 1970.
Society of the Sigma Xi.
Society of Kappa Psi - Honorary Member.
Rho Chi Pharmaceutical Honor Society.
Emerson Fellow, 1934, School of Medicine, University of Maryland, Baltimore, Maryland.
Garvan Scholarship, American Chemical Society, 1929 - 1933.

FASEB STAFF

Curriculum Vitae of George Washington Irving, Jr.

Personal

Born: November 20, 1910, Caribou, Maine

Married: Frances Catherine Connell

Children: George W., III; Mary Constance

Home address: 4836 Langdrum Lane
Chevy Chase, Maryland 20015
Home phone: (301) 652-8564

Washington address: Federation of American Societies for Experimental Biology
9650 Rockville Pike
Bethesda, Maryland 20014
Phone: (301) 530-7033

Education

George Washington University — B.S. 1933

George Washington University — M.A. 1935 Ph.D. 1939
School of Medicine. Major: Biochemistry

Professional Appointments

Research Associate, Life Sciences Research Office, Federation of American Societies for Experimental Biology, Bethesda, Maryland, 1972-

Administrator, Agricultural Research Service, Department of Agriculture, Washington, D.C., 1965-71.

Associate Administrator, Agricultural Research Service, Department of Agriculture, Washington, D.C., 1964-65.

Deputy Administrator, Agricultural Research Service, Department of Agriculture, Washington, D.C. 1954-64.

Chief of Branch, Biological Sciences Branch, Marketing Research Div., Agricultural Marketing Service, Department of Agriculture, Washington, D.C., January-October, 1954.

Assistant Chief of Bureau, Bur. of Agricultural and Industrial Chemistry, Agricultural Research Administration, Department of Agriculture, Washington, D.C., 1947-54.

Head of Division of Biochemistry, Bur. of Agricultural and Industrial Chemistry, Agricultural Research Administration, Department of Agriculture, Beltsville, Maryland, 1946-47.

Acting Head of Division of Biochemistry, Bur. of Agricultural and Industrial Chemistry, Agricultural Research Administration, Department of Agriculture, Beltsville, Maryland 1944-46.

Biochemist, Head, Protein Section, Bur. of Agricultural and Industrial Chemistry, Agricultural Research Administration, Department of Agriculture, New Orleans, La., 1942-44.

Assistant in Chemistry, Rockefeller Inst. for Medical Research, New York, N. Y., 1939-42.

Research Fellow in Biochemistry, Cornell University Medical College, New York, N. Y., 1938-1939.

Research Fellow in Biochemistry, Biochemistry Department, George Washington University Medical School, Washington, D.C. 1936-38.

Research Assistant in Biochemistry, Biochemistry Department, George Washington University Medical School, Washington, D.C., 1935-36.

Junior Chemist, Bureau of Entomology, Department of Agriculture, Washington, D.C. August-October, 1935.

Under Scientist Helper, Bureau of Plant Industry, Department of Agriculture, Washington, D.C., 1928-35.

Minor Laboratory Apprentice, Bureau of Standards, Department of Commerce, Washington, D.C., 1927-28.

Invited Lectureships

Professorial Lecturer in Biochemistry, Department of Biochemistry, George Washington University Medical School, 1947-53.

Lecturer on Antibiotics, U.S. Department of Agriculture Graduate School, 1946-52.

Research Experience

Doctor's Thesis: The Electrophoretic Studies of the Pressor and Oxytocic Principles of the Posterior Pituitary Gland

In approximately 20 years in chemistry and biochemistry laboratories have participated with others or conducted or directed research that has

contributed to knowledge of the chemistry of the pituitary hormones useful in the treatment of certain forms of diabetes; to the biochemistry of changes that take place in living cells leading to cancer; to the biochemistry of animal and plant proteins and their contribution to good nutrition. With co-workers, discovered the first antibiotic to be isolated from a green plant and with other co-workers, demonstrated for the first time the route of movement of plant growth regulators (like 2,4-D) in the living plant; spent a portion of some 15 years instructing and teaching biochemistry to medical students and graduate students. Have directed and administered research and regulatory and control programs from units of a half-dozen personnel to 15,000 (the Agricultural Research Service, USDA).

Societies and Biographical Directories

American Chemical Society
Chemical Society of Washington
American Society of Biological Chemists
Washington Academy of Sciences
American Association for the Advancement of Science
Institute of Food Technologists
Organization of Professional Employees of the Department of Agriculture
American Institute of Chemists
Alpha Chi Sigma
Society of Sigma Xi
Phi Eta Sigma
Tau Kappa Epsilon
American Men of Science
Who's Who in America
Who's Who in American Education - Leaders in American Science
Who's Who in the South and Southwest
Cosmos Club

Awards, Honors, Civic Activities

USDA Superior Service Award (Group Award), 1949.
Award for Scientific Achievement in Physical Sciences, Washington Academy of Sciences, 1946.
Professorial Lecturer in Biochemistry, George Washington University Medical School, Washington, D.C., 1947-53.
Lecturer on Antibiotics, Department of Agriculture Graduate School, 1946-52.
American Chemical Society, 1929 to date. Councilor, 1956-1958, 1961-63 and 1968-; President, Washington Section, 1954; Member, Professional Relations and Status Committee, 1962-64; Alternate Councilor, 1965-68; Advisory Board Advances in Chemistry Series, 1963-65; Member, Committee on Professional Relations, 1967-present.
Chemical Society of Washington. President, 1954; Councilor; Long Range Planning Committee, 1963 to date; Chairman, 1968; Executive Committee of Board of Directors, 1968-; Councilor, 1968-.

Washington Academy of Sciences, 1946 to date. Fellow; Vice President, 1953; Program Committee Member, 1957; Chairman, 1958; Executive Committee; Secretary, 1962-64; President-Elect, 1968; President, 1969-70.

American Association for the Advancement of Science, Fellow; Chairman of Section O, Agriculture, 1962; Vice President, 1962; Committeeman-at-large, 1963-67.

Alpha Chi Sigma, 1929 to date. College Chapter Recorder and Reporter; Washington Professional Chapter President, 1948-49; Associate Editor, "The Hexagon," 1970-.

George Washington University Alumni Association, 1954-60. Governing Board; Vice President for Graduate Council, 1956.

George Washington University, Advisory Committee to Department of Chemistry, 1968-.

Cosmos Club, 1946 to date. Member Admissions Committee, 1955-57; Member, Awards Committee, 1965-67; Member, Endowment Fund Committee, 1966-67; Member, Board of Management, 1967-69; Awards Committee, 1970-.

The Nutrition Foundation, Inc. Elected Public Trustee, November 11, 1965; Member, Board of Trustees, 1965-.

The International Sugar Research Foundation. Member, Scientific Advisory Board; Chairman, Scientific Advisory Board, 1967-68, 1969-71.

Service Award of Alpha Chi Sigma, 1968.

USDA Distinguished Service Award, 1969.

D.C. Chapter, American Institute of Chemists, 1969 Honor Scroll, May, 1969.

Honor Scroll from the American Leather Chemists Association, June, 1969.

PUBLICATIONS AND SELECTED PRESENTATIONS

1934

1. A Salt Bridge for use in Electrometric Measurements
Irving, G.W., Jr. and Smith, N.R.
Anal. Ed., Indus. and Engineering Chem., Vol. 6, No. 6, 1934

1937

2. The Inapplicability of the Azotobacter Plaque Method for Certain Eastern Soils (no copies available)
Smith, N. R. and Irving, G.W., Jr.
Paper presented before the Biological Section, Am.Soc.Agron., Chicago, 1937

3. The Utilization of l-carnosine by Animals on a Histidine Deficient Diet
duVigneaud, V.; Irving, G.W., Jr.
J. Biol. Chem. 117, 589-597 (1937)

1938

4. Electrophoresis of Posterior Pituitary Gland Preparations
duVigneaud, V., Irving, G.W., Jr., Dyer, H.M. and Sealock, R.R.
J. Biol. Chem. 123, 45 (1938)

5. The Differential Migration of the Pressor and Oxytocic Hormones in Electrophoretic Studies of the Untreated Press-Juice of the Posterior Lobe of the Pituitary Gland
Irving, G.W., Jr. and duVigneaud, V.
J. Biol. Chem. 123, 485 (1938)

1940

6. The Specificity of Proteolytic Enzymes from Tumors
Fruton, J.S., Irving, G.W., Jr., and Bergmann, Max
J. Biol. Chem. 132, 465 (1940)

7. Preparation of d(-)-Glutamic Acid from dl-Glutamic Acid by Enzymatic Resolution
Fruton, J.C., Irving, G.W., Jr., and Bergmann, Max
J. Biol. Chem., 133, 703 (1940)

8. Laboratory Juice Extractor
Irving, G.W., Jr. and Loring, T.W.
Ind. Eng. Chem. Anal. Ed. 12, 548 (1940)

9. A Simple Laboratory Method for Obtaining Preparations Containing Pressor and Oxytocic Activity from the Posterior Lobe of the Pituitary Gland
Irving, G.W., Jr. and duVigneaud, V.
J. Am. Chem. Soc. 62, 2090 (1940)

10. Electrophoretic Studies Upon the Pressor and Oxytocic Principles of the Pituitary Gland
Irving, G.W., Jr.
The G.W.Univ. Bulletin (1940) p. 28; Summary of Doctoral Theses (1938-40)

1941

11. Purification of the Pressor Principle of the Posterior Lobe of the Pituitary Gland by Electrophoresis
Irving, G.W., Jr.,Dyer, H.M. and du Vigneaud, V.
J.Am.Chem.Soc. 63, 503 (1941)

12. The Amphoteric Nature of the Pressor Principle of the Posterior Lobe of the Pituitary Gland
Cohn, M., Irving, G.W., Jr., and duVigneaud, V.
J.Biol.Chem. 137, 635 (1941)

13. Kinetics of Proteinase Action, Application to Specificity Problems
Irving, G.W., Jr., Fruton, J.S. and Bergmann, Max
J.Biol.Chem., 138 231-242 (1941)

14. On the Proteolytic Enzymes of Animal Tissues II. The Composite Nature of Beef Spleen Cathepsin
Fruton, J.S., Irving, G.W., Jr., and Bergmann, Max
J.Biol.Chem. 138, 249-262 (1941)

15. The Activation of Intracellular Proteinases
Irving, G.W., Jr., Fruton, J.S. and Bergmann, Max
J.Biol.Chem. 139, 569-582 (1941)

16. On the Proteolytic Enzymes of Animal Tissues III. The Proteolytic Enzymes of Beef Spleen, Beef Kidney, and Swine Kidney. Classification of the Cathepsins
Fruton, J.S., Irving, G.W., Jr. and Bergmann, Max
J.Biol.Chem. 141, 763-774 (1941)

1942

17. The Activation of Papain Trypsinase as a Function of the Nature of the Activator
Irving, G.W., Jr., Fruton, J.S. and Bergmann, Max
J.Genl.Physiol. 25, 669-677 (1942)

18. On the Proteolytic Enzymes of Animal Tissues IV. Differences between Aerobic and Anaerobic Proteolysis
Irving, G.W., Jr., Fruton, J.S. and Bergmann, Max
J.Biol.Chem. 144, 161-168 (1942)

1943

19. Hormones of the Posterior Lobe of the Pituitary Bland
Irving, G.W., Jr. and duVigneaud, V.
Ann. N.Y.Acad.Science XLIII Art. 6, 273-307 (1943)

1944

20. Properties of Peanut Meal. Influence of Processing Factors
Fontaine, T.D., Samuels, C., and Irving, G.W., Jr.
Ind.Eng.Chem. 36, 625 (1944)

21. Effect of Light on the Reaction of Tyrosine in the Van Slyke Volumetric Amino Nitrogen Apparatus
Fontaine, T.D. and Irving, G.W., Jr.
Arch.Biochem. 4, 455-6 (1944)

22. The Reaction of Ammonia in the Van Slyke Volumetric Amino Nitrogen Method
Irving, G.W., Jr., Fontaine, T.D. and Samuels, C.S.
Archives of Biochem. 4, 347-359 (1944)

23. The Chemistry and Physiology of the Posterior Lobe of the Pituitary Gland
Irving, G.W., Jr.
"The Chemistry and Physiology of Hormones," Gibson Island Symposium of the American Assoc. for the Advancement of Science, pp. 28-46 (1944)

1945

24. Lyophilization Apparatus
Pomes, A. and Irving, G.W., Jr.
Science 101, 22 (1945)

25. Purification and Properties of Arachain, a Newly Discovered Proteolytic Enzyme of the Peanut
Irving, G.W., Jr. and Fontaine, T.D.
Arch.Biochem. 6, 551 (1945)

26. Lycopersicin, a Fungistatic Agent from the Tomato Plant
Irving, G.W., Jr., Fontaine, T.D. and Doolittle, S.P.
Science 102, 9-11 (1945)

27. Electrophoretic Investigation of Peanut Proteins I. Peanut Meal Extract Arachin and Conarachin
Irving, G.W., Jr., Fontaine, T.D. and Warner, R.C.
Arch.Biochem. 7, 475 (1945)

28. Electrophoretic Investigation of Peanut Proteins II. Composition of Several Peanut Protein Fractions
Fontaine, T.D., Irving, G.W., Jr. and Warner, R.C.
Arch.Biochem. 8, 329-49 (1945)

29. Improvement in the Color of Peanut and Cottonseed Proteins
Fontaine, T.D., Irving, G.W., Jr. and Detwiler, S.B.,Jr.
Ind.Eng.Chem. 37, 1232-6 (1945)

1946

30. Process of Fractionating Peanut Proteins
Irving, G.W.,Jr., Merrifield, A.L., Burnett, R.S., and Parker, E.C.
Patent No. 2,405,830 issued August 13, 1946

31. Peptization of Peanut and Cottonseed Proteins. Effect of Dialysis and Various Acids
Fontaine, T.D., Irving, G.W., Jr. and Markley, K.S.
Ind.Eng.Chem. 38, 658-62 (1946)

32. Protein-Phytic Acid Relationship in Peanuts and Cottonseed
Fontaine, T.D., Pons, W.A., Jr. and Irving, G.W., Jr.
J.Biol.Chem. 164, 487-507 (1946)

33. Partial Antibiotic Spectrum of Tomatin, an Antibiotic Agent from the Tomato Plant
Irving, G.W., Jr., Fontaine, T.D. and Doolittle, S.P.
J.Bact. 52, 601-607 (1946)

1947

34. Translocation of a Radioactive Plant Growth Regulator in Bean and Barley Plants
Wood, J.W., Mitchell, J.W. and Irving, G.W., Jr.
Science 105, 337-9 (1947)

35. Partial Purification and Properties of Tomatin, an Antibiotic Agent from the Tomato Plant
Fontaine, T.D., Irving, G.W., Jr., and Doolittle, S.P.
Arch.Biochem. 12, 395-404 (1947)

36. The Significance of Tomatin in Plant and Animal Disease
Irving, G.W., Jr.
J.Wash.Academy Sci. 37, 293-296 (1947)

37. Relative Growth Rates of Bean and Oat Plants Containing Known Amounts of a Labeled Plant Growth Regulator (2-Iodo^{131}-3-Nitrobenzoic Acid)
Mitchell, J.S., Wood, J.W., Wolfe, W.C., and Irving, G.W., Jr.
Science 106, pp. 395-397 (1947)

1948

38. The Nutritive Value of Cottonseed for Chicks as Affected by Methods of Processing and Content of Pigment Glands
Boatner, C.H., Altschul, A.M. and Irving, G.W., Jr.; Poultry Science, XXVII, No. 3, 1948

39. Isolation and Partial Characterization of Crystalline Tomatine, an Antibiotic Agent from the Tomato Plant
Fontaine, T.D., Irving, G.W., Jr., Ma, R. and Poole, J.B., Doolittle, S.P.
Archives Biochem., 18, No. 2, September 1948

40. The Nutritive Value of Peanut Cake, Meal, Protein and Nonprotein Residue for Chicks
Altschul, A.M., Irving, G.W., Jr., Guilbeau, W.F. and Schaefer, H.C.
Poultry Science, 27, No. 4, July 1948

1949

41. Antibiotics
Edited by G.W. Irving, Jr. and H. T. Herrick
The Chemical Publishing Co., Brooklyn, N.Y. (1949) 272 pp.

42. How Science Contributes to Better Living
Irving, G.W., Jr.
Presented before National 4-H Club Camp, Dept. Auditorium (USDA), June 18, 1949, published by Extension Service

43. Scientific Research: Its Administration and Organization
Edited by George P. Bush and Lowell H. Hattery
Chapter: Research Reporting, Evaluation and Utilization
G.W. Irving, Jr.
American University Press (1950)

44. Crops in Peace and War
Irving, G.W., Jr., Chairman Yearbook Committee
Yearbook of Agriculture 1950-51

1953

45. Plant Sources of Biologically Active Compounds
Compiled by BACC Div., Irving, G.W., Jr., former Chief
March 1953

1954

46. Research Planning in the U.S.D.A.
Irving, G.W., Jr.
Presented before 7th Annual Mtg.Res. & Develop.Assoc., Food & Container Institute, Inc., Los Angeles, Calif., 6/1954. Published in proceedings

1955

47. Research Creates Wider Markets for Farm Products
Irving, G.W., Jr.
Presented before Am.Beekeeping Federation, Chicago, Ill., 1/27/1955

48. Agricultural Research Looks Ahead
Irving, G.W., Jr.
Address as retiring President, Chem.Soc. of Wash. Capital Chemist 5, No. 2, 5/1955.

49. The Role of Entomology in the Future of Agriculture
Irving, G.W., Jr.
Presented before 3rd Annual Mtg., Entomological Society of America
Cincinnati, Ohio - 11/30/1955

50. Antibiotics in Agriculture
Irving, G.W., Jr. and Byerly, T.C.
Interview with Washington Correspondent for the Feed Bag, published in the Feed Bag, November 1955

1956

51. Agriculture--Where the Sciences Meet
Irving, G.W., Jr.
Presented before 4th Natl. Convention of National Science Teachers Assoc., Washington, D.C. 3/16/56. Published by Natl. Sci. Teachers Assoc. as part of "Science Teaching through Problem Solving," 1956

52. Agricultural Research and Public Health
Irving, G.W., Jr.
Commencement Address, University of Tennessee, Memphis, Tenn., 6/11/56
Published by the University of Tennessee for the Div. of University Extension, Vol. 59, No. 6, pp 90-93

1957

53. Hearing on Sale of Louisville, Ky. Alcohol Butadiene Plant
Testimony by G.W. Irving, Jr.
Subcommittee of the Committee on Banking and Currency, U.S. Senate, 3/7/57, p. 63

54. Summary of Future Utilization of Agricultural Commodities
Irving, G.W., Jr.
Symposium on Future Utilization of Agricultural Commodities
American Chemical Society mtg., New York City, 9/11/57

55. An Evaluation of the Research Program of the Department of Agriculture
Irving, G.W., Jr.
58th Meeting of Interdepartmental Committee on Scientific Research and Development, Washington, D.C. 9/19/57

1958

56. The Partnership of Agriculture and the Chemical Industry
Irving, G.W., Jr.
Panel Discussion before Manufacturing Chemists Assoc., New York City, 11/25/1958

1959

57. Science in the USDA
Irving, G.W., Jr.
Statement before Committee on Science and Astronautics of House of Representatives - 2/27/1959; published as Basic Research in Agriculture by the Committee on Science and Astronautics, No. 20

58. Utilization Research, Its Objectives and Accomplishments
Irving, G.W., Jr.
Meeting of Philadelphia Society for Promoting Agriculture
Philadelphia, Pa. 4/1/1959

59. New Uses for Farm Products
Irving, G.W., Jr.
Article in Extension Service Review, November 1959

60. USDA Food Research Develops New Products New Processes
Irving, G. W., Jr.
Food Processing, 20, 11 pp 29-33, November 1959

1960

61. CORE Report
Irving, G.W., Jr.
Report of Committee on Research Evaluation, published in 3 parts, released for publication in January 1960

62. New Uses for Farm Products
Irving, G.W., Jr.
Chemurgic Digest - January 1960, Vol. 19, No. 1

63. USDA is finding new uses for surplus crops
Irving, G.W., Jr.
Massey-Ferguson publn., Farm Profit, May-June 1960, p. 10

64. A Chemist's Chemist
Irving, G.W., Jr.
Presentation of AIC Award to Dr. Fisher, SU, New Orleans, La., 6/7/1960
Published in The Chemist, Vol. 37, No. 8, August 1960 pp 297-299

65. Activities of USDA in Biomedical Research
Irving, G.W., Jr.
Hearing before Subcommittee on Reorganization and International Organizations of Committee on Government Operations, U.S. Senate - 8/11/1960
Printed for use of Committee on Govt. Operations under title, "Coordination of Activities of Federal Agencies in Biomedical Research," pp. 51-53; 69-71

66. Emerging Dimensions of Science
Irving, G.W., Jr.; Dr. Paul McDaniel, AEC; Dr. James A. Shannon, NIH-HEW
Panel Discussion, Inst. for Career Science Executives, Washington, D.C., 10/13/1960

1961

67. Industrial Uses for Farm Products
Irving, G.W., Jr.
Chemurgic Council, Cincinnati, Ohio, 4/14/1961

68. Substitution Crops
Irving, G.W., Jr.
NAS-NRC Conference on Renewable Natural Resources, Woods Hole, Mass. 8/15-18/1961
Published by NAS-NRC #1000-A, 1962, pp 34-36 & 99

69. Improving the Management of Federally Financed Research
Irving, G.W., Jr.
Institute for Career Science Executives, U.S. Civil Service Commission,
Stone House, Bethesda, Maryland, 12/11-15/1961

1962

70. Chemicals in Utilization of Fibers Derived from Agriculture
Irving, G.W., Jr.
American Chemical Society's 141st Natl. Mtg., Washington, D.C., 3/21/62

71. Basic Research Foreshadows Future Food Trends
Irving, G.W., Jr. and Hoover, S.R.
Foods of the Future Symposium, Inst. of Food Technologists Meeting, Miami,
Florida - 6/10-14/1962. Published in Food Technology, 1963, Vol. 27,
No. 3, pp 33-39

72. Food Science and Technology - Its Place in the Future
Irving, G.W., Jr.
First International Congress of Food Science and Technology, London, England,
Sept. 18-21, 1962. Published in Proceedings.

73. Introductory Remarks, Symposium for Section O, "Food Quality as Affected
by Production Practices and Processing"
Irving, G.W. and Hoover, S.R.
AAAS Annual Meeting, Philadelphia, Pa., 12/26-31, 1962. Published as "Food
Quality--Effects of Production Practices and Processing." Publication No. 77
of the AAAS, Washington, D.C., 1965. Edited by G. W. Irving, Jr. and
S. R. Hoover, ARS-USDA

74. Chemical Research and Better Markets
Irving, G.W., Jr. and Hoover, S.R.
1962 Yearbook, United Fresh Fruit and Vegetable Assoc., pp 34-37

1963

75. Remarks - AIC Honor Award to S.B. Detwiler, Jr.
Irving, G.W., Jr.
Washington Chapter, Am. Inst. of Chemists Banquet, Washington, D.C. - 5/14/63
Published in The Chemist, Vol. XL, No. 10, Oct. 1963, pp. 379-383.

1964

76. New Horizons in Utilization Research
Irving, G.W., Jr.
Chemurgic Council Meeting, Philadelphia, Pa. - March 19, 1964

77. Expanding the Uses of Farm Products
Irving, G.W., Jr. and Detwiler, S.B., Jr.
Farmers' World - The Yearbook of Agriculture, 1964, pp 571-75

1965

78. Hearings before the House and Senate Appropriations Committees, FY's 1949 thru 1966, with list for all 55 appearances, 1949 thru 1971. For years subsequent to 1966, see entry under appropriate year.

79. The USDA Research Program on Mycotoxins
Irving, G. W., Jr.
Meeting of American Oil Chemists' Society, Houston, Texas, April 28, 1965
Published in J.Amer.Oil Chem.Soc., September, 1965, p. 466A

80. Expanding the Use of Farm Products
Senti, F.R. and Irving, G.W., Jr.
Agric. and Food Chem. 13, No. 5, 428-431 (1965)

81. Dr. Benjamin D. Van Evera, Professor Extraordinary
Irving, G.W., Jr.
Talk at reception honoring Dr. Van Evera for 40 years of service to George Washington Univ., Lisner Auditorium, G.W.U., Washington, D.C., Oct. 11, 1965

1966

82. A Lab that Stuffs the US Larder; Business Week, Feb. 26, 1966, p. 62-70,
Quotes and picture of G.W. Irving, Jr.

83. The Future of Agricultural Research
Irving, G.W., Jr.
Talk before the Annual Meeting of the National Research Council, Wash., D.C., March 14, 1966

84. The Continuing Role of Agricultural Research
Irving, G.W., Jr.
Talk before the Pacific Division, American Phytopathological Society, Davis, Calif., June 23, 1966

85. The Diverse Roles of Agricultural Research
Irving, G.W., Jr.
The George Washington Univ. Magazine, Federal Issue, June,1966

86. Pesticides Regulation by the U.S. Department of Agriculture
Irving, G.W., Jr.
Talk before the Pesticides Subdivision, Div. of Agricultural and Food Chemistry, American Chemical Society, New York City, Sept. 13, 1966.

87. U.S. Research to Improve the Capacity of Agriculture to Compete
Irving, G.W., Jr.
Talk before the meeting of the National Association of County Agents, Honolulu, Hawaii, Nov. 4, 1966

88. Frontiers for Agricultural Research to Meet U.S. Needs
Irving, G.W., Jr.
Talk before Winter Meeting of the American Society of Agricultural Engineers, Chicago, Ill., December 9, 1966. Published in Agricultural Engineering, 48, 201 (1967).

89. The Problem: Why Control Pests?
Irving, G.W., Jr.
Talk during a symposium: "Scientific Aspects of Pest Control" at the Annual Meeting of the American Association for the Advancement of Science, Wash., D.C., December 29, 1966

90. Hearings before the House Appropriations Committee, for FY 1967, Feb. 14, 1966

1967

91. Agricultural Research Policy in ARS
Irving, G.W., Jr.
Talk before the Beltwide Cotton Production-Mechanization Conference, Dallas Texas, Jan. 12, 1967

92. Weed Control and Public Welfare
Irving, G. W., Jr.
Talk before the Annual Meeting of the Weed Society of America, Washington, D.C., Feb. 14, 1967. Published in: (1) National Agricultural Chemicals Association News and Pesticide Review, 25, 3 (1967) and (2) Weeds, 15, 296-299 (1967)

93. UJNR Conference, Tokyo, Japan, March 9-10, 1967

94. Hearings before the Senate Appropriations Committee, for FY 1968, April 3, 1967

95. Hearings before the Senate Intergovernmental Operations Committee, Subcommittee, April 5, 1967

96. Hearings before the House Appropriations Committee, for FY 1968, April 18, 1967

97. Meeting the World's Food Requirements for Animal Products
Irving, G.W., Jr.
Remarks and moderation of session in connection with NAS-NRC Public Symposium on the Use of Drugs in Animal Feeds, Washington, D.C., June 6, 1967

97a. Safety Testing of Insect Viruses: Background, Policy and Views.
Irving, G.W., Jr.
Presentation before the Food and Drug Administration Advisory Committee on Protocols for Safety Evaluations, Washington, D.C., June 8, 1967.

98. Meeting Agriculture's Needs in the Year 2000
Irving, G.W., Jr.
Talk at the dedication of the Soil and Water Conservation Research Laboratory, USDA Northern Great Plains Research Center, Mandan, N.D., June 13, 1967

99. Chemistry in Agriculture
Irving, G.W., Jr.
Prepared for and published by the Sperry Rand Corporation in their magazine, SPERRYSCOPE 17, No. 10, Third Quarter, 1967

100. Pesticide Outlook
Irving, G.W., Jr.
Talk before the Annual Meeting of the National Agricultural Chemicals Association, Palm Springs, Calif., November 6, 1967

1968

101. Pest Control: Its Growing Significance Here and Abroad
Irving, G.W., Jr.
Talk before the Univ. of Florida Pest Control Conference, Gainesville, Fla., Feb. 27, 1968

102. Hearing before the House Appropriations Committee, for FY 1969, March 11, 1968
102a. Hearing before the Senate Appropriations Cmte., for FY 1969, April 22, 1968.

103. ARS-State Relationships and Responsibilities in Agricultural Research
Irving, G.W., Jr.
Talk before CSRS Directors and Administrative-Technical representatives, Washington, D.C., May 6, 1968

104. Alpha Chi Sigma Award
Irving, G.W., Jr.
Speech of acceptance of the Professional Service Award of the Washington Professional Chapter, Alpha Chi Sigma Fraternity, Arlington, Va., May 10, 1968

105. Perspectives on the Mycotoxin Problem in the United States.
Irving, G. W., Jr.
Talk before the UJNR Conference on Toxic Microorganisms, Honolulu, Hawaii, October 7, 1968. Published in proceedings of the conference, December, 1970

106. Education and Federal Laboratory-University Relations
Irving, G.W., Jr.
Remarks as chairman, symposium of the Federal Council for Science and Technology, Museum of History and Technology, Smithsonian Institution, Washington, D.C., October 29-31, 1968. Proceedings published, May 1969.

107. Research as an Investment
Irving, B.W., Jr.
Talk before the Puerto Rico Sugar Technologists Association, San Juan, P.R., November 23, 1968. Published in the Journal of the Washington Academy of Sciences, 59, 1-6 (1969). Also in Hearings before a Subcommittee on Appropriations, House of Representatives, Ninety-First Congress, First Session, Part 2, pp. 240-247, (1969).

1969

108. Hearings before the House Appropriations Committee, FY 1970, March 10, 1969

109. Hearings before the Senate Appropriations Committee, FY 1970, March 28, 1969.

110. Chemistry and Other Good Things
Irving, G.W., Jr.
Address of acceptance of the 1969 Honor Scroll of the D.C. Chapter of the American Institute of Chemists, Cosmos Club, Washington, D.C., May 23, 1969. Published in The Chemist, 46, 374-381 (1969).

111. Prospects for the Future
Irving, G.W., Jr.
Talk before the Commercial Chemical Development Association, New Orleans, La., May 29, 1969. Published as part of Monograph 36, "Technical Economics of Crop Protection and Pest Control," Commercial Development Association.

112. Hearings before Subcommittee of Committee on Government Operations, House Deficiencies in Administration of the Fed. Insect., Fungic., or Rodenticide Act, June 24, 1969.

113. Directions for Research in USDA
Irving, G.W., Jr.
Talk before the 65th Annual Meeting of the American Leather Chemists Association, Bretton Woods, New Hampshire, June 25, 1969. Accepted a certificate of recognition.

114. Food from Nontraditional Sources - A Challenge to Agricultural Science.
Irving, G.W., Jr.
Talk before the joint meeting of the Agricultural Board - Agricultural Research Institute, NAS-NRC, Washington, D. C., October 14, 1969.

115. Jamie Whitten, the Permanent Secretary of Agriculture.
Article by Nick Kotz in The Washington Monthly 1, No. 9, page 9, October, 1969. The article "quotes" and talks about G. W. Irving, Jr.

116. Programming Research Activities
Irving, G.W., Jr.
Talk before the Working Conference of Directors of Agricultural Research, OECD Countries, Paris, France, November 25, 1969. Published, 1970 by OECD: also in OECD "Agrar-Revue", Vol. 17, No. 3, p. 80-84 Feb. 1971 (in German).

1970

117. ARS Food and Nutrition Programs.
Irving, G.W., Jr.
Talk at the 1970 National Agricultural Outlook Conference; panel discussion on the implications for agricultural programs of recommendations of the White House Conference on Food, Nutrition and Health, Washington, D.C., February 17, 1970.

118. Hearings before the Senate Appropriations Committee, FY 1971, March 5, 1970.

119. ARS as a Partner.
Irving, G.W., Jr.
Talk before CSRS Directors' and Administrative-Technical Representatives' Workshop, University of Maryland, May 6, 1970.

120. The Environment.
Irving, G.W., Jr.
Address as retiring President of the Washington Academy of Sciences, Cosmos Club, Washington, D.C., May 20, 1970.

121. Unitized-Containerized Shipping for Agricultural Products.
Irving, G.W., Jr.
Article for the National Defense Transportation Association, Washington, D.C., published in DEFENSE TRANSPORTATION 26, No. 3, p. 66, May-June, 1970.

122. Agricultural Pest Control and the Environment.
Irving, G.W., Jr.
SCIENCE 168, p. 1419, June 19, 1970; also in "The Survival Equation - Man, Resources and His Environment," Roger Revelle et al, Houghton Mifflin Co., 1921, p. 473.

123. The Challenge of the 70's: Produce and Conserve
Irving, G.W , Jr.
Talk before the Third International Congress of Food Science and Technology, Sheraton Park Hotel, Washington, D.C., August 10, 1970. Proceedings published 1971, pp. 3-6.

124. A Chemist's View of the 1970's.
Irving, G.W., Jr.
Talk before the 10th Annual Meeting and Symposium of the Phytochemical Society of North America, College Park, Md., October 7, 1970.

125. Remote sensing: Space-Age Techniques at Work for Agriculture
Irving, G.W., Jr.
Article for the Organization for Economic Co-operation and Development (OECD), published in AGRICULTURAL REVIEW 17, No. 3, p. 80 (1970).

126. The Revolution in American Agriculture.
National Geographic Magazine, February, 1970, pp. 184-185, quoting G. W. Irving, Jr.

1971

127. Meeting USDA Responsibilities for Pest Control and Pesticides.
Irving, G.W., Jr.
Talk before the Annual Meeting of the Western Agricultural Chemicals Association, Portland, Oregon, January 14, 1971.

128. Hearing before the House Appropriations Committee, FY 1972, March 15, 1971.

129. Aflatoxin Research: A Review of ARS Studies.
Irving, G.W., Jr.
Publication ARS 20-17, May, 1971.

130. Review of Agriculture.
Irving, G.W., Jr.
Article submitted to Mr. Richard G. Young, Executive Editor, Brittanica Yearbook of Science and the Future, May 27, 1971.

131. Analytical Problems in Agricultural Science.
Irving, G.W., Jr. and Schaefer, Wilbur C. (Peoria).
Talk presented (GWI) at the 24th Annual Summer Symposium on Analytical Chemistry, National Bureau of Standards, Gaithersburg, Md., June 17, 1971.

132. The Scientist in the Age of Environmental Consciousness; Whither his Professional Responsibilities?
Irving, G. W., Jr.
Remarks preceding a panel of six members, sponsored by the Professional Relations Committee, American Chemical Society, Washington Hilton Hotel, Washington, D.C., September 15, 1971.

133. Observations on the Scientific and Political Aspects of Pollution and Its Control.
Irving, G. W., Jr.
Address before the annual dinner meeting of the American Society for Microbiology, Georgetown University, Washington, D.C., October 5, 1971.
J. Wash. Acad. Sci. 61, 239-46, Dec. 1971.

134. The Department of Agriculture and International Space Cooperation.
Irving, G.W., Jr. and Miller, Robert H.
Senate Document 92-57, Dec. 9, 1971, pp. 131-38.

135. Agriculture's Future in an Urban Society.
Irving, G. W., Jr.
Delivered before the symposium on Agriculture in an Urban Society, part of the Second National Biological Congress, AIBS, Miami Beach, Fla., October 23, 1971.

136. Managing Our Environment.
Irving, G.W., Jr.
The Progressive Farmer, November, 1971, page 66.

137. The Role and Future of Pesticides in Maintaining Food Supply.
Irving, G. W., Jr.
Delivered before the 7th Middle Atlantic Regional Meeting, American Chemical Society, Marriott Motel, Phila., Pa., February 16, 1972. Published in Jour. of Wash. Acad. of Sci., Vol. 62, 3, Sept., 1972.

1972.
138. 1972 U.S. Department of Agriculture Yearbook, "Landscape for Living,"
G. W. Irving, Jr., Chairman, 1972 Yearbook Committee.

139. Analytical Chemistry: Key to Progress on National Problems.
Proc. of 24th Annual Summer Symposium on Analytical Chemistry, 1971.
Chapter 4: Analytical Problems in Agricultural Science.
Irving, G.W., Jr., Schaefer, W. C.
U.S. Dept. of Commerce, Natl. Bur. of Standards Spec. Publ. 351. Issued 8/72.

140. Environmental Impacts of Increased Agricultural Production Efficiency.
Irving, G.W., Jr. and Wadleigh, C.H.
Delivered as part of a program, Economic and Social Impacts of Improving Agricultural Production Efficiency, of the Agricultural Research Inst., NAS-NRC, Wash., D.C. October 10, 1972.

141. Review of the GRAS List - LSRO's Role in Review of the GRAS List
Irving, G. W., Jr.
Delivered as part of a program conducted at a meeting of the Grocery Manufacturers of America, Inc. Tech. Cmte. for Food Protection, 1/11/73, Wash., D.C.

CURRICULUM VITAE

FASEB STAFF

May 1972

GENERAL

Name: Samuel B(ertolet) Detwiler, Jr.
Social Security number: 224-60-1759.
Birth date: September 21, 1909.
Birth place: Wabasha, Minnesota.
Marital status: Married to Kathryn N. Detwiler.
Home address: 631 S. Walter Reed Drive, Arlington, Virginia 22204. Phone (703) 920-0634.
Business affiliation: Assistant to Deputy Administrator (Marketing and Nutrition Research), Agricultural Research Service, U. S. Department of Agriculture, Washington, D. C. 20250. Office currently located in Rm. 637 Federal Center Building, Hyattsville, Md. Phone (202) 388-8313.

EDUCATION

George Washington University, 1927-1936. B.S. (chemistry) in 1934. Subsequent graduate work.
University of Illinois, 1937-1941. M.A. (chemistry) in 1941.

EMPLOYMENT RECORD

A. National Bureau of Standards, U. S. Department of Commerce, Washington, D. C. (1927-1937)

A-1. Mails and Files Section
Start: June 21, 1927.
Positions: Junior Messenger, Assistant Messenger.
Duties: Mail delivery, filing.

A-2. Division of Specifications
Start: January 1, 1928.
Positions: Assistant Messenger, Senior Typist, Assistant Clerk.
Duties: Clerical assistance in development of lists of manufacturers willing to certify to compliance with Federal specifications. Assisted in compiling and editing (a) "Standards and Specifications for Nonmetallic Minerals and Their Products" (1930) (NBS Misc. Pub. 110), and (b) "Directory of Specifications" (1932) (NBS Misc. Pub. 130). Wrote the chapter on foreign national standardizing bodies in "Standards Yearbook" for 1929 through 1933 (NBS Misc. Pubs. 91, 106, 119, 133, and 139).

A-3. Fire Resistance Section, Heat and Power Division
Start: July 1, 1933.
Positions: Assistant Clerk and (after receipt of university degree) Junior Fire Prevention Engineer.
Duties: Assisted in pilot-scale testing of fire resistance of bearing walls, partitions, and other structural members. Conducted independent research on textile flameproofing and self-ignition points of flammable liquids. Assisted Section Chief, who served as Secretary of the Federal Fire Council, in investigating and maintaining records on fires in Federal buildings. Served on Federal Fire Council task force that investigated and reported on fire hazards of Federal and District of Columbia government institutions in the Washington area,

e.g., St. Elizabeths Hospital, Lorton Reformatory, D. C. Jail, Poorhouse at Blue Plains, USDA installations at Beltsville, Md. Assisted in tests of automatic fire alarm system installed in the White House. Pursuant to the Morro Castle disaster, assisted in tests of fire alarm systems installed in Liberty ships anchored in the James River. Prepared NBS letter circular on textile flameproofing.

B. U. S. Department of Agriculture (1937 to present)

Note: Employment in USDA has been concerned with agricultural chemical research, or more specifically, research on new or improved uses for farm crops. The record is confusing because of frequent reorganizations and name changes in the group conducting this program. The chronology of the agricultural chemical research group is as follows:

1862 Division of Chemistry established, concurrent with establishment of Department of Agriculture.
1901 Bureau of Chemistry established.
1927 Bureau of Chemistry and Soils established.
1938 Bureau of Agricultural Chemistry and Engineering established.
1941 Four Regional Research Laboratories established under this Bureau; they gradually absorbed the Bureau's old line divisions.
1943 Bureau of Agricultural and Industrial Chemistry established.
1954 Agricultural Research Service established; bureaus were abolished. Agricultural chemical research was thenceforth directed by a deputy administrator of ARS, whose functions covered:
- 1954 Research
- 1957 Utilization Research and Development
- 1963 Nutrition, Consumer, and Industrial Use Research
- 1969 Marketing and Nutrition Research

B-1. U. S. Regional Soybean Industrial Products Laboratory, Urbana, Ill.
Start: June 1, 1937.
Position: Junior Chemist.
Duties: Research at P-1 level on the composition and properties of soybean oil, e.g., construction of molecular stills and evaluation of their utility in fractionating soybean oil; evaluation of liquid-liquid extraction as a fractionation tool; studies of infrared absorption spectra of soybean oil; determination of colorimetric coefficients of Lovibond glasses; examination of soybean oil winterizer press cake, soybean oil "foots," the nature of "green" soybean oil, etc. (Publications in this period are listed elsewhere in this summary.)

B-2. U. S. Department of Agriculture, Washington, D. C.

(1) Office of Chief, Bureau of Agricultural Chemistry and Engineering
Start: August 16, 1941.
Position: Associate Chemist.
Duties: Assistance to Bureau project officer in status control of research projects and technical progress reports. Analysis and evaluation of progress reports. Preparation of annual reports for congressional and other uses. Surveys of literature on such special subjects as molasses grass (Melinus minutiflora) and the Jerusalem artichoke, and preparation of reports thereon.

(2) Office of Chief, Bureau of Agricultural and Industrial Chemistry
Start: April 3, 1949.
Positions: Chemist GS-11 and GS-12 (Technical Program Specialist).
Duties: "Secures and maintains for the Office of the Chief up-to-the-minute information on the status, accomplishments, industrial developments, publications, and phases of work currently being pursued, on all research projects of the Bureau; secures this information by devising a research progress reporting procedure . . . , by visiting whenever practicable the Regional Laboratories and other stations, . . . as well as by being thoroughly familiar with all active research projects, reports, publications, and pertinent correspondence of the Bureau . . . " (from job description). In this connection, served as Bureau project officer.

(3) Agricultural Research Service, Washington Utilization Research Branch
Start: January 1954.
Position: Chemist GS-12 (Technical Assistant to Chief of Branch).
Duties: Assistance to Chief of Branch in developing and operating a new organization for certain research groups in the Washington area, including status control of projects and reports, developing procedures for technical operations, review and clearance of research manuscripts, etc.

(4) Agricultural Research Service, Eastern Utilization Research and Development Division (i.e., Eastern Regional Research Laboratory)
Start: January 30, 1955.
Positions: Chemist GS-12 (Technical Assistant to Director) and Physical Science Administrator GS-13 (Assistant to Director).
Duties: Same services as in (3) above, on behalf of Director of Eastern UR&D Division, to which the Washington-area research divisions had been transferred.

(5) Agricultural Research Service, Office of Administrator
Start: February 9, 1958.
Positions: Physical Science Administrator GS-14 and GS-15 (Special Assistant to Administrator, then Assistant to Administrator, then Assistant to Deputy Administrator).
Duties: Development of grants for agricultural utilization research in foreign institutions, under the authorization of the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480, 83rd Congress). Served as chairman of the Foreign Utilization Research Panel, consisting of representatives of the Regional Research Laboratories, which evaluates grant proposals and which has held 40 meetings since April 1958. Acted as Deputy Administrator's liaison with the International Programs Division, which handles negotiation and funding of the grants.
Concurrently with the foregoing, have served as the Deputy Administrator's project officer for domestic as well as foreign aspects of the program.
Since 1965, have assisted the Deputy Administrator in a variety of other assignments, including preparation of technical justifications for budget requests, preparing special annual reports to Congress on accomplishments in agricultural utilization research, serving as secretary of the Deputy's Research Council, and representing the Deputy in a wide variety of relations with other agencies.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Chemical Society
American Oil Chemists' Society
American Institute of Chemists
American Association for the Advancement of Science
Washington Academy of Sciences

SERVICES TO PROFESSIONAL SOCIETIES

American Oil Chemists' Society: For some years past, the Society's delegate to the Agricultural Research Institute of NAS/NRC.
Washington Academy of Sciences: Associate editor of the Academy's Journal, 1960; editor, January 1961 through March, 1969. Manager-at-large and member of Executive Committee.
American Chemical Society, national: Member of Constitution and Bylaws Committee, 1962-67; member of Council in same period.
Washington Section, American Chemical Society: Associate editor of The Capital Chemist, 1955; editor, January 1956 through September 1963. Manager, 1956-57. Councilor, 1962-67. Alternate Councilor, 1958-60, 1968-70. Treasurer, 1958-60. Secretary, 1961.

MEMBERSHIP IN OTHER SOCIETIES

Cosmos Club of Washington, D. C., since 1942.
Virginia Historical Society.
Historical Society of Montgomery County, Pennsylvania.

AWARDS

Service award of the Washington Chapter, American Institute of Chemists, 1963.
Service award of the Washington Section, American Chemical Society, 1967.

FOREIGN TRAVEL

Visit to Japan, Korea, Manchuria, and North China in summer of 1939, in part to inspect soybean processing plants and visit institutions conducting soybean oil research. (Unpublished report prepared.)
Visit to India and Pakistan in fall of 1960 in connection with establishment of the USDA Foreign Research Grants Program under Public Law 480, to survey the facilities of research institutions, develop programs for agricultural chemical research, and negotiate grants for such programs. Incidental travel in Italy, France, and England. (Unpublished report prepared.)
Visit to India in spring of 1962, again to survey institutions and negotiate grants under the P.L. 480 agricultural chemical research program. (Unpublished report prepared.)

RECENT SPECIAL ASSIGNMENTS

Served intermittently in 1967-69 on a task force of the Committee on Federal Laboratories, Federal Council of Science and Technology, concerned with interrelationships between Federal R&D laboratories and universities. Participated in survey of about 80 Federal laboratories throughout the United States. Helped organize a symposium on the subject, held in Washington and attended by key government research directors. Helped to compile and edit three FCST publi-

cations:
Education and the Federal Laboratories (March 1968)
Proceedings of a Symposium on Education and Federal Laboratory-University Relationships (October 29-31, 1968)
Catalogue of Federal Laboratory-University Programs and Relationships (August 1969)

About 1969, served on detail to USDA's Foreign Agricultural Service, acting as escort to a team of scientists from the Japanese Ministry of Health and Welfare, who had been invited to the United States to study our food additive practices. The visit was occasioned by adverse Japanese government rulings on import of American food products containing additives that were unfamiliar to the Japanese. The three-week trip involved visits, in Washington and elsewhere, to offices and laboratories of the Food and Drug Administration, Consumer and Marketing Service, Western Regional Research Laboratory, Army Natick Laboratories, University of California, and food manufacturing concerns.

Played a leading part in arranging the program of the 33rd Annual Conference of the Chemurgic Council, held in Washington May 11-12, 1972, for which the Deputy Administrator of ARS was program chairman.

PUBLICATIONS

(List reconstructed in May 1972; incomplete. Only signed articles are listed; anonymous reports and other publications are mentioned elsewhere in this summary.)

S. B. Detwiler, Jr., and K. S. Markley. Oil and Soap 16, 2-5 (1939). Bibliography on molecular or short-path distillation.
S. B. Detwiler, Jr., and K. S. Markley. Oil and Soap 17, 39-40 (1940). Smoke, flash, and fire points of soybean and other vegetable oils.
S. B. Detwiler, Jr., and K. S. Markley. Ind. Eng. Chem., Anal. Ed. 12, 348-50 (1940). Laboratory-type molecular or short-path still for vegetable and animal fats and oils.
S. B. Detwiler, Jr. Oil and Soap 17, 241-3 (1940). Supplement to bibliography on molecular or short-path distillation.
F. R. Earle and S. B. Detwiler, Jr. Oil and Soap 18, 117-19 (1941). Wax constituents of the winterizer press cake of soybean oil.
S. B. Detwiler, Jr., W. C. Bull, and D. H. Wheeler. Oil and Soap 20, 108-22 (1943). Molecular distillation of a crude soybean oil.
T. D. Fontaine, S. B. Detwiler, Jr., and G. W. Irving, Jr. Ind. Eng. Chem. 37, 1232-6 (1945). Improvement in the color of peanut and cottonseed proteins.
S. B. Detwiler, Jr. Processed publication, U. S. Regional Soybean Industrial Products Laboratory, Urbana, Ill., 1941. Abstracts of articles and patents on molecular distillation.
P. H. Groggins and S. B. Detwiler, Jr. Ind. Eng. Chem. 42, 1690-3 (1950). Chemical engineering unit processes: Friedel-Crafts reaction.
P. H. Groggins and S. B. Detwiler, Jr. Ind. Eng. Chem. 43, 1970-4 (1951). Chemical engineering unit processes review: Friedel-Crafts reactions.
P. H. Groggins and S. B. Detwiler, Jr. Ind. Eng. Chem. 44, 2012-15 (1952). Friedel-Crafts reaction.

Samuel B. Detwiler, Jr. George Washington University Magazine 1 (3), 24-7 (1964). U. S. crop surpluses finance research overseas toward the development of new or improved uses for farm products.

George W. Irving, Jr., and Samuel B. Detwiler, Jr. 1964 Yearbook of Agriculture, 571-5. Expanding the uses of farm products.

FASEB STAFF

Curriculum Vitae

Kenneth Deane Fisher

Personal

Born: March 3, 1932, Lowell, Massachusetts
Married: Mary Lee Hoilman, 1956
Children: Sarah Anne, Elizabeth Lee, Herbert Andrew
Home Address: 17815 Mill Creek Drive
Rockville, Maryland 20855
301/926-6806

Business Address: Life Sciences Research Office
Federation of American Societies for Experimental Biology
9650 Rockville Pike
Bethesda, Maryland 20014
301/530-7030

Education

Oberlin College	1949-1951	
University of Vermont	1951-1955	B.S. (1953); M.S.
North Carolina State University	1957-1960	Ph.D.
Major: Plant Pathology		

Professional Appointments

Research Associate, Life Sciences Research Office, Federation of American Societies for Experimental Biology, Bethesda, Maryland, 1968 -

Lecturer in Biology, Montgomery College, Rockville, Maryland, 1969 -

Plant Pathologist and Extension Plant Pathologist, Plant and Soil Science Department, University of Vermont, Burlington, Vermont 05401, 1966 - 1968.

Assistant Professor of Botany, University of Vermont, 1963 - 1966.

Assistant Professor of Plant Pathology, South Dakota State University, Brookings, South Dakota, 1960 - 1963.

Graduate Research Fellow, Department of Plant Pathology, North Carolina State University, Raleigh, North Carolina, 1957 - 1960.

Biological Research Assistant, Medical Nutrition Laboratory, Fitzsimons Army Hospital, Denver, Colorado, 1956 - 1957.

Graduate Research Assistant, Botany Department, University of Vermont, 1954 - 1955.

Research Experience

Master's Thesis: "Investigations on the Fungicide, 2-3 dichloro-1-4, naphthoquinone"

Doctoral Thesis: "Some Physiological Comparisons of the Fusarium Surface Rot and Fusarium Wilt Pathogens of Sweet Potato"

While on active duty with the United States Army, I was the NCO in charge of the Tracer Laboratory, Physiology Division, Medical Nutrition Laboratory. Techniques of determining extracellular body water space and total body water turnover were primary research efforts. Two publications.

From 1960 through 1967 research on physiology of parasitism of several bacterial and actinomycete pathogens of irish potato was conducted using tetraploid and diploid cultivars as resistant and susceptible test genotypes. Several reports on practical aspects of these studies were published. In addition, a cooperative program in growing processing potatoes was organized and implemented. Research on sugar beet diseases was initiated when this industry moved into that area in 1961. Six publications.

From 1963 to 1968, in collaboration with several graduate students, techniques of tissue culture were employed in research on physiology and biochemistry of parasitism with several phytobacteria, nematodes and viruses. Based in part on these studies, virus-free and virus indexed deciduous fruit-tree cultivars were isolated and propagated. In 1965, a research effort on aquatic phytonematodes was initiated. These studies led to isolation and identification of several free living and plant parasitic aquatic nematodes. In addition, a collaborative research program on post-harvest decay of deciduous fruits was developed and a cooperative research program on root diseases in forage crops was conducted. These studies were reported in 34 publications.

Since 1968, conducted review and analysis of scientific problems in the biomedical sciences for several federal agencies in the Life Sciences Research Office, Federation of American Societies for Experimental Biology. Documented reports are prepared that provide scientific and technologic assessment of the subject, indicate research opportunities, and include specific recommendations for future action. These reports incorporate the opinions of the scientists who participate in the ad hoc review, results of literature searches, and analyses by Life Sciences Research Office staff. Studies have been undertaken and reports prepared for the Army Research Office, Office of the Chief of Research and Development, and the Office of The Surgeon General, Department of the Army; the Bureau of Radiological Health, U.S. Public Health Service; and the National Institute of Neurological Diseases and Stroke and the National Heart and Lung Institute, National Institutes of Health. These evaluative reviews have included identification of promising areas for application of physiochemical techniques in solving biological problems, the application of new knowledge in treating ionizing radiation injury, the radiological health aspects of agents modifying the biological effects of radiation, the pharmacology and toxicology of vision in the soldier, a study of vision as related to dark adaptation and night vision in the soldier, new methods of measuring the cerebral circulation, biomedical effects of marihuana, and individual variability in dark adaptation and night vision in man.

Other Professional Experience

Scientific Coordinator, American Biology Council Task Force on the Contributions of the Biological Sciences to Human Welfare. 1970 -

Participant, Conference for Scientists and Science Writers, Arlie House, Warrenton, Virginia, July, 1970.

Speaker, Honors Convocation, University of Maryland School of Pharmacy, Baltimore, Maryland, November 1969.

Vermont representative and Chairman (1967), Technical Committee NEM-33 of Northeast Regional Agriculture Experiment Stations, 1965 - 1968.

Vermont representative, Technical Committee NE-34 of Northeast Regional Agricultural Experiment Stations, 1964 - 1967.

Director, N.S.F. Research Participation Program for High School Teachers, University of Vermont, 1964 - 1968.

Visiting Scientist, N.S.F. Visiting Science Program, 1964 - 1968.

Cooperator, N.S.F. Undergraduate Research Participation Program, 1964 - 1968.

University of Vermont Curriculum Committee, 1964.

Studies Committee, College of Agriculture, University of Vermont, 1964 - 1965.

Executive Committee, Lake Champlain Studies Center, 1965 - 1968.

University of Vermont, NASA Research Advisory Committee, 1964 - 1968.

Programmed modernization of potato chip manufacturing plant, Polly Parrot Potato Chip Co., Sioux Falls, South Dakota, 1961 - 1962.

Organized Microbiology laboratory for canning company, Denver, Colorado. Trained personnel in quality and contamination control, 1956 - 1957.

Professional Societies

American Institute of Biological Sciences
American Association for the Advancement of Science
Society of Nematologists

Honors and Fellowships

Society of Sigma Xi
Gamma Sigma Delta - Agricultural Science Honor Society
Alpha Zeta Honor Society
Graduate Research Fellow 1967 - 1960, North Carolina State University, Raleigh, N. Carolina
Graduate Research Fellow 1954 - 1956, University of Vermont, Burlington, Vermont
Washburn Scholarship, University of Vermont, 1952.

February, 1973

CURRICULUM VITAE

FASEB STAFF

GENERAL

Name: Andrew F(oster) Freeman
Social Security Number: 224-60-0387
Birth date: June 4, 1908
Birth place: Ottumwa, Iowa
Marital status: Married to Lula Harriet Wood Freeman
Home address: 5012 North 33rd Street, Arlington, Virginia 22207
Phone: (703) 538-4729

EDUCATION

George Washington University, 1927-1936. B.S. (School of Engineering with major in chemistry) in 1935. Subsequent graduate studies in chemistry at George Washington University and University of Maryland from 1935 to 1938.

EMPLOYMENT RECORD

A. Federal Trade Commission, Washington, D. C. (1927-1936)

Served as junior, senior, and principal clerk, stenographer, and secretary to attorneys in various offices of the Commission, concerned with legal aspects of false and misleading advertising of foods, drugs, and other products.

B. U. S. Department of Agriculture (1936-1971)

Note: Employment in USDA has been concerned with agricultural chemical research in three agencies, i.e., the Bureau of Entomology and Plant Quarantine, the Bureau of Chemistry and Soils (identified subsequently by other names as a consequence of reorganization), and the Office of Foreign Agricultural Relations (currently identified as the Foreign Agricultural Service). The two first named agencies were abolished in 1954, and their functions were assumed by the Agricultural Research Service.

B-1. Division of Insecticide Investigations, Bureau of Entomology and Plant Quarantine, at both Washington, D.C. and College Park, Maryland
Start: March 16, 1936
Position: Junior Chemist
Duties: Research at P-1 level in the development and preparation of new organic chemicals for use as insecticides; and in the investigation of insecticidal principles, such as rotenone, in the plants derris and cube' which elaborate this principle.

B-2. Agricultural Chemical Research Division, Bureau of Chemistry and Soils later identified as Bureau of Agricultural Chemistry and Engingeering.

B-2A. Washington, D.C.
Start: July 27, 1938
Positions: Junior and Assistant Chemist
Duties: Research, first at P-1 level and subsequently at P-2 level, engaged in the development of techniques for analysis of tung fruit and tung oil; and the design and operation of laboratory scale pilot plant for the solvent extraction of tung oil.

B-2B. Bogalusa, Louisiana
Start: March 1, 1940 (however, on detail at location from September, 1939)
Positions: Assistant Chemist and from June 16, 1941 as P-3 Associate Chemist
Duties: Continuation of duties as in B-2A, above, and temporarily in charge of field station. Subsequently, assigned as chemist in charge of U. S. Tung Oil Laboratory and to conduct chemical and technological investigations pertaining to the development of the domestic tung oil industry; to cooperate with other U.S. agencies in the investigation of various cultural and technological research problems; to conduct investigations concerning the improvement of processes for the extraction of tung oil by solvent extraction or expression; to conduct investigations concerning the evaluation of tung oil; and improvement of methods for determining the oil content of tung fruit; and to cooperate with the domestic tung oil industry in an effort to increase production of oil.

B-3. Technical Collaboration Branch, Office of Foreign Agricultural Relations, Tingo Maria, Peru
Start: January 27, 1945
Position: Senior Chemist
Duties: At P-4 level, served as chemist in charge of the Dept. of Chemistry and Soils, U.S.-Peruvian Cooperative Experiment Station, assigned to establish, equip, staff with Peruvian employees, and direct the operation of such Department of the station. Conducted difficult and important chemical experiments to determine the value of individual tropical plants or groups of plants pertaining to strategic complementary crops, such as rubber, cinchona, and rotenone, so that superior specimens might be selected, in order to propagate them either as plants with outstanding qualities by themselves or else to be bred to other plants of the same species, so as to be able to incorporate all conditions necessary to produce a superior strain relative to the quantity and potency of the desired product, its ability to survive and increase under the soil and climatic conditions to be found in given zones and localities.

B-4. Southern Regional Research Laboratory, Bureau of Agricultural and Industrial Chemistry, New Orleans, Louisiana (see Bureau of Chemistry and Soils in foregoing note.)

B-4A. Oil, Fat and Protein Division
Start: January 5, 1948
Position: Senior Chemist
Duties: At P-4 level, served in the Oil and Oilseed Processing Section to plan and conduct researches and investigations on the quality improvement of peanut products and new uses for peanut oil, especially with reference to quality improvement of peanut butter and products made therefrom, including processing peanuts from raw stock to finished consumer goods, including packaging, storing, testing by chemical and organoleptic methods; to plan and conduct investigations of new methods of processing peanuts for edible purposes, and to develop new end products in which peanuts or derivatives thereof are an essential ingredient; to investigate means of preventing or retarding deterioration of peanut butter and products containing peanut butter, and of preventing or retarding oil separation in peanut butter or products containing peanut butter; and to plan and conduct research on the chemical and physical properties of peanuts and their derived products

for the purpose of obtaining data essential in designing equipment for their processing.

B-4B. Oil and Oilseed Division
Start: July 15, 1949
Positions: GS-11 Chemist and from October 9, 1950 as GS-12 Chemist
Duties: Served as chemist in charge of Products Section to plan, organize, supervise, and conduct researches and investigations on the manufacture of peanut products, as well as products of other nuts produced in the southern area of the United States, which would serve to improve existing uses and create new uses of such products. Subsequently the name of the section was changed to Oilseed Processing Section, and the scope of the work was expanded to include researches and investigations on the processing of tung fruit and supervision of the staff engaged in these endeavors.

B-5. Central Product Office, Agricultural Research Service, Washington, D. C.
Start: March 17, 1954
Position: GS-12 Research Project Analyst
Duties: This position involved activities in the general field of research program analysis and for advising the Administrator and other members of his staff in the planning and direction of the Department's research program, and coordination of research, marketing service, and statistical activities of the USDA. This included assisting professional personnel of the USDA in the preparation of research project descriptions, reviewing such description for adequacy of statements as instruments for administrative control of research, developing and suggesting improvements in forms and instructions for documentation of projects, and determining that appropriate action has been taken on technical suggestions and criticisms of agencies that review project proposals.

B-6. Eastern Utilization Research and Development Division, Agricultural Research Service, Washington, D. C.
Start: December 2, 1956 as GS-12 Chemist, and June 1, 1958 as GS-13 Physical Science Administrator
Position: Technical Assistant to Division Director, and subsequently as Assistant to Division Director
Duties: These positions involved providing the Division Director with high-level technical assistance on continuing and special assignments and in the solution of technical and administrative problems encountered in the agricultural chemical research program of the Division, with particular regard to the Washington and Beltsville laboratories of the Division, which were primarily concerned with the Chemistry of dairy products, meat products, and allergens in agricultural products. The Division's program involved broad and complex studies in the physical and biological sciences, directed to the solution of problems of national significance in the processing of agricultural commodities, residues, and byproducts, and their utilization in improved foods, feeds, drugs, fabrics, plastics, industrial chemicals, and related products.

B-7. Agricultural Research Service, Office of Administrator, Washington, D. C.
Start: September 7, 1958 as GS-13, and March 5, 1961 as GS-14
Position: Physical Science Administrator
Duties: Served as Assistant to Special Assistant to Administrator, who was later named Assistant to Administrator and then Assistant to Deputy Administrator in the development of grants for agricultural utilization research in foreign institutions, under the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480, 83rd Congress). Served as executive secretary of the Foreign Utilization Research Panel, consisting of representatives of the Regional Research Laboratories, which evaluated grant proposals and which held 40 meetings beginning in April, 1958. In the absence of the Administrator's Assistant served as acting Assistant to the Deputy Administrator with full responsibility for PL 480 program operations, and also as acting project officer for domestic as well as foreign aspects of research program administered by the Deputy Administrator. In addition, assisted the Administrator's Assistant in a variety of other assignments, including preparation of technical justifications for budget requests, and preparing special annual reports to Congress on accomplishments in agricultural utilization research.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Chemical Society
American Oil Chemists' Society
Washington Academy of Sciences

SERVICES TO PROFESSIONAL SOCIETIES

American Chemical Society: Served for about ten years as a member of the Society's Admissions Committee, which reviewed applications for membership in the Society and made recommendations to the office of the Executive Secretary of the Society regarding the qualifications of applicants for membership.
Washington Section, American Chemical Society: Served as Treasurer, member of the Board of Managers, and as Alternate Councilor.

MEMBERSHIP IN OTHER SOCIETIES

Society of the Sigma Xi
Sigma Tau
Alpha Chi Sigma
Organization of Professional Employees of the Department of Agriculture

FOREIGN TRAVEL

Tour of duty from 1945 to 1947 in Peru for the U. S. Department of Agriculture, as described in item B-3, above. This also involved visits to Puerto Rico, Guatemala, and Ecuador to survey facilities of research institutions and to study techniques of interest to the program of the experiment station at Tingo Maria, Peru.

PUBLICATIONS

(Anonymous reports and other publications following assignment to administrative positions in 1954 and after are not mentioned in this list.)

A. F. Freeman and H. L. Haller, JACS 60, 2274 (1938). The preparation of amyl salicylates.

N. L. Drake and A. F. Freeman. Organic Synthesis, Collective Vol. II. Report on preparation of organic compound.

R. S. McKinney and A. F. Freeman, JAOCS 16, 151 (1939). The analysis of tung fruit.

A. F. Freeman and R. S. McKinney, Oil, Paint, and Drug Reporter, August 4, 1941. Tung oil extraction by a solvent process.

R. S. McKinney and A. F. Freeman. Oil, Paint, and Drug Reporter, August 11, 1941. Dehydration of tung fruit.

W. G. Rose, A. F. Freeman, and R. S. McKinney. Ind. Eng. Chem. 34, 612 (1942). The solvent extraction of tung oil.

A. F. Freeman, F. C. Pack, and R. S. McKinney. Ind. Eng. Chem. 35, 1156 (1943). Solvents in extraction of tung oil.

A. F. Freeman, F. C. Pack, and R. S. McKinney. JAOCS 20 (1943). Moisture determinations on tung fruit and its components for control purposes.

A. F. Freeman, F. C. Pack, R. S. McKinney, and G. F. Potter. Proc. American Tung Oil Association, April 30, 1943, 38–49. Effect of fertilizers on oil content of tung fruit.

A. F. Freeman, F. C. Pack, and R. S. McKinney. JAOCS 21, 328 (1944). Effect of moisture on efficiency of solvent extraction of tung oil.

R. T. O'Connor, D. C. Heinzelman, A. F. Freeman, and F. C. Pack. Anal. Ed. Ind. Eng. Chem. 17, 467 (1945). Spectrophotometric determination of alpha-eleostearic acid in freshly extracted tung oil.

T. L. Ward, W. S. Singleton, and A. F. Freeman. Food Research 15, 146 (1950). The heat capacity of stabilized peanut butter.

W. S. Singleton and A. F. Freeman. Food Research 15, 297 (1950). Expansibility and specific volume of stabilized and unstabilized peanut butters.

A. F. Freeman and W. S. Singleton. Peanut Journal and Nut World 31, 23, 30, 45–46 (1952). Prevention of oil separation in peanut butter—a review.

A. F. Freeman. Proc. National Peanut Council, April 19–21, 1951. Edible utilization research on peanuts.

A. F. Freeman. Proc. Peanut Butter Mfrs. Association, February 17, 1951. Research on improvement of quality of peanut butter.

R. K. Willich, A. S. Hall, N. J. Morris, and A. F. Freeman. Food Technology 6, 71 (1952). Peanut Butter. I. Roasting, cooling, blanching, and picking of peanuts.

R. K. Willich, M. D. Murray, R. T. O'Connor, and A. F. Freeman. Food Technology 6, 199 (1952). Effect of roasting and blanching on the thiamin content of peanut butter.

N. J. Morris, R. K. Willich, and A. F. Freeman. Food Technology 7, 366 (1953). Peanut Butter III. Effect of roasting, blanching, and sorting on oil content and free fatty acids of peanuts.

S. P. Fore, N. J. Morris, C. H. Mack, A. F. Freeman, and W. G. Bickford. JAOCS 30, 298 (1953). Factors affecting the stability of crude oils of sixteen varieties of peanuts.

N. J. Morris and A. F. Freeman. Food Technology 7, 227 (1953). Determination of stabilities of crude peanut oils by accelerated aeration methods.

PUBLICATIONS (cont'd)

N. J. Morris, I. W. Ichmann, R. T. O'Connor, and A. F. Freeman. Food Technology 7, 303 (1953). Determination of color of peanut butter by a spectral reflectance method.

R. K. Willich, N. J. Morris, and A. F. Freeman. Food Technology 8, 101 (1954). Peanut Butter. V. The effect of processing and storage of peanut butters on the stabilities of their oils.

M. B. Pepper, Jr., and A. F. Freeman. JAOCS 30, 335 (1953). Determination of moisture in peanut butter.

N. J. Morris, and A. F. Freeman. Food Technology 8, 377 (1954). Peanut Butter VI. The effect of processing on the palatability of peanut butter.

A. F. Freeman. Proc. Research Conference, Utilization of Edible Peanuts, Southern Regional Research laboratory, February 5-6, 1953. Research at SRRL on Utilization of edible peanuts.

A. M. Altschul and A. F. Freeman. Proc. American Tung Oil Assoc., October 10, 1952. Broad aspects of tung utilization research.

A. F. Freeman. Peanut Journal and Nut World. June 1953. Broad aspects of research on utilization of edible peanuts.

Frank C. Magne, Ewald L. Skau, and A. F. Freeman. JAOCS 31, 113 (1954). Solubility of hydrogenated peanut oil in peanut oil.

PATENTS

U. S. 2155010, April 18, 1939 to A. F. Freeman. Use of N-nitrosodiphenylamine as an insecticide.

U. S. 2272047, February 3, 1943 to A. F. Freeman. Use of 1,4-diphenylsemicarbazide as an insecticide.

U. S. 2277342, March 24, 1942, to A. F. Freeman, R. S. McKinney, and W. G. Rose. A treatment by heat for rendering tung oil in a solid state obtained by solvent extraction permanently liquid.

Dr. Altschul currently serves on the visiting committee to the Department of Nutrition and Food Science, M.I.T.; is a consultant to the Food Protein Research and Development Center, Texas A & M University; and is a consultant to the National Research and Development Council of Israel on food policy ; and is a member of the Select Committee on GRAS Substances of the Federation of Societies of Experimental Biology.

AWARDS AND RECOGNITION:

1956: Superior Service Award (USDA)
--for spearheading a joint effort of Government, industry, and State Experiment Stations to develop methods for producing cottonseed protein concentrate suitable for feeding to monogastric animals.

1964: Golden Peanut Award (National Peanut Council)
--for distinguished achievements in research on peanuts.

1965: Charles F. Spencer Award (American Chemical Society)
--for outstanding contributions to agricultural and food chemistry.

1966: First Technion Achievement Award (Chicago Chapter of the American Society for Technion Israel Institute of Technology)
--for combining definitive chemical research with unsurpassed political understanding to fight the battle against protein deficiency in the underdeveloped nations of the world.

1967: Fifth Underwood-Prescott Memorial Lecturer (M.I.T.)
--for contributions to basic biochemistry of foods through the work on seed proteins, for contributions to practical approaches on meeting the nutritional needs in the underdeveloped areas of the world, for contributions to food science and technology through the well-known books, Processed Plant Protein Foodstuffs and Proteins -- Their Chemistry and Politics.

1968: Honorary Degree of Doctor of Science given by Tulane University, New Orleans,
--for outstanding contributions in the field of food chemistry.

1968: Lecturer in Science, Colorado State University.

1970: Distinguished Service Award, U.S. Dept. of Agriculture.
--for exceptional scientific ability and dynamic leadership in identifying and emphasizing the world problem of protein hunger, and initiating a wide variety of innovative programs for its solution.

1970: Rockefeller Public Service Award in the field of The General Welfare or Natural Resources
--in recognition of distinguished service to the Government of the United States and to the American People.

1971: The Distinguished Food Scientist of the Year presented by the New York Section of the Institute of Food Technologists.

1971: The Thomas A. Edison Memorial Lectureship at the invitation of the Naval Research Laboratory Branch of the Scientific Research Society of America

1971: The International Award presented by the Institute of Food Technologists

1972: Distinguished Alumnus:1972. University of Chicago Club of Washington, D

Committeeman

AARON MAYER ALTSCHUL

Born in Chicago, Illinois. Obtained B.S. at University of Chicago in 1934; Ph.D. in Physical Chemistry in 1937. Member of University of Chicago's Department of Chemistry, as member of the Spectroscopic Biological Investigation Unit sponsored by Rockefeller Foundation, conducted research on pigments and enzymes involved in biological oxidations.

Joined staff of Southern Regional Research Laboratory, U.S. Department of Agriculture, New Orleans, Louisiana, 1941. Head of Protein and Carbohydrate Division, 1949-1952, Head of Oilseed Section 1952-58, Chief Research Chemist, Seed Protein Pioneering Research Laboratory, 1958-66. During 1966, while the Chief Research Chemist, Seed Protein Pioneering Research Laboratory, he commuted to Washington to serve as a Special Assistant to the Secretary of Agriculture. In 1967 he undertook the assignment as Special Assistant for International Nutrition Improvement, International Agricultural Development Service, and Consultant to the Secretary of Agriculture, responsible for accelerating ongoing programs and initiating new efforts to increase world protein supplies, exploring opportunities for improving the protein value of cereals, for developing new protein foods from low-cost protein sources, and serving as a focal point to which activities related towards the increase in protein supplies can be funneled. In July 1969 he was named Special Assistant to the Secretary of Agriculture for Nutrition Improvement broadening his previous assignment to include the domestic scene as well as the international. On September 1971 he was appointed Professor in the Department of Community Medicine and International Health, Georgetown University School of Medicine, Washington, D.C.

He is the author of over 150 publications and holds 11 patents. He has authored one book, Proteins, Their Chemistry and Politics (Basic Books, New York, 1965) and edited another, Processed Plant Protein Foodstuffs (Academic Press, New York, 1958).

He has served as consultant to several governments, and to the United Nations agencies. He has participated in numerous international conferences and has organized several international conferences whose proceedings have been published. One of these, World Protein Resources was published by the American Chemical Society, 1966. Another one based on a symposium on "Amino Acid Fortification of Protein Foods" jointly organized and edited with Nevin Scrimshaw was issued by MIT Press in 1971.

Member, Phi Beta Kappa; Sigma X; Phi Tau Sigma; American Society of Biological Chemists; American Chemical Society; Institute of Food Technologists; American Institute of Nutrition; Agricultural Board of the National Academy of Sciences, National Research Council; Society for Economic Botany; Editorial Board of Economic Botany and Plant Foods for Human Nutrition; National Advisory Council, Monell Chemical Senses Center, University of Pennsylvania; Editorial Advisory Board of Chemical and Engineering News.

Formerly, Professor, Dept. of Chemistry and Lecturer, Department of Biochemistry, Tulane University; Lecturer, Dept. of Nutrition and Food Science - Massachusetts Institute of Technology; member of Sub-Panel on Increasing High Quality Protein President's Science Advisory Committee; Advisory Committee of INCAP (Institute of Nutrition of Central America and Panama); Research Consultant, National Cottonseed Products Association; Panel on Malnutrition - U.S.-Japan Cooperative Medical Research Program.

Comm. Hee man

Joseph Francis Borzelleca
8718 September Drive
Richmond, Virginia 23229

703 - 282-2004

3 October 1930, Norristown, Pa.
Married (Mary Elizabeth Ford) - 6 children

B.S.	St. Joseph's College, Philadelphia, Pa. Biology, Chemistry	1952
M.S.	School of Graduate Studies Thomas Jefferson University Jefferson Medical College, Philadelphia, Pa. Pharmacology, Physiology	1954
Ph. D.	School of Graduate Studies Thomas Jefferson University Jefferson Medical College, Philadelphia, Pa. Pharmacology, Biochemistry	1956

Instructor	- Department of Pharmacology Woman's Medical College	1956-1959
Assistant Professor	- Department of Pharmacology Medical College of Virginia	1959-1962
Associate Professor	- Department of Pharmacology	1962-1967
Professor	- Department of Pharmacology Medical College of Virginia	1967-

Professional Affiliations

Societies

American Society of Pharmacology and Experimental Therapeutics

Society of Experimental Biology and Medicine * (Councillor, Program Chairman of Southeastern Section).

Society of Toxicology* (Chairman, Education Committee; Secretary of the Society; Councillor; President-Elect)

Sigma Xi

American Chemical Society

Virginia Academy of Sciences* (Chairman, Medical Sciences Division; Council)

American Association for the Advancement of Science

New York Academy of Sciences

*Held elected office

Consultantships

FDA/NIMH Drug Abuse Advisory Committee

FASEB Select Committee on GRAS Substances

NCI Contracts Review

NCTR

A-1 Influence of deflation on pentobarbital sleeping time in mice.
Borzelleca, Joseph F. and R. W. Manthei.
Fed. Proc. 15: 403, 1956.

A-2 The effect of blood pH on barbiturate sleeping time in mice.
Borzelleca, Joseph F.
Fed. Proc. 16: 284, 1957.

A-3 Drug absorption from the urinary bladder.
Borzelleca, Joseph F.
Fed. Proc. 18: 370, 1959.

A-4 Nicotine absorption from the urinary bladder of the dog.
Borzelleca, Joseph F.
Fed. Proc. 19 : 391, 1960.

A-5 Depressor effects arising from (-) - cotinine.
Borzelleca, Joseph F., E. R. Bowman, H. McKennis, Jr.
The Pharmacologist 2: 72, 1960.

A-6 Influence of saline infusions on the course of barbiturate intoxication.
Borzelleca, Joseph F.
The Pharmacologist 3: 63, 1961.

A-7 Drug absorption from the urinary tract of the rat. Nicotine.
Borzelleca, Joseph F.
Fed. Proc. 21: 451, 1962.

A-8 Drug movement from the isolated urinary bladder of the rabbit.
Borzelleca, Joseph F.
Fed. Proc. 22:661, 1963.

A-9 Effect of Cotinine and other nicotine metabolites in vitro on duodenum and ileum segments.
Kim, K. S., Joseph F. Borzelleca, et al
Fed. Proc. 23: 330, 1964.

A-10 Studies on the mechanisms of drug movement from the isolated urinary bladder.
Borzelleca, Joseph F.
Pharmacologist 6: 178, 1964.

A-11 Salivary excretion of drugs.
Borzelleca, Joseph F. and Catherine H. Doyle
Fed. Proc. 24: 546, 1965.

A-12 Salivary excretion of drugs. Antibiotics
Cherrick, H. and Joseph F. Borzelleca
Tox. Appl. Pharmacol. 7: 481, 1965.

A-13 Prolongation of barbiturate sleeping time in mice by stimulation of the RES
Wooles, W. R. and Joseph F. Borzelleca
J.R.E.S. 1: 574, 1965.

A-14 Rectal absorption of salicylates.
Loventhal, W. and Joseph F. Borzelleca
Tox. Appl. Pharmacol. 8: 347, 1966.

A-15 Salivary excretion of glucose, salicylate, penicillin.
Borzelleca, Joseph F.
Fed. Proc. 24 564, 1966.

A-16 Pharmacological effects of some nicotine metabolites and related compounds.
Kim, K. S. and Joseph F. Borzelleca
Fed. Proc. 26: 683, 1967.

A-17 The effe-t of dimethylsulfoxide on drug transfer from the urinary bladder.
Bernstein, S. and Joseph F. Borzelleca
Va. J. Sci. 18: 195, 1967.

A-18 Predictive model for blood glucose concentration in the dog.
Mullen, K. and Borzelleca, Joseph F.
Va. J. Sci. 18: 200, 1967.

A-19 Excretion and toxicity of EGTA and EDTA after oral administration to rats.
Wynn, J. E., Van't Riet. B. and Borzelleca, Joseph F.
Fed. Proc. 27: 465, 1968.

A-20 Adrenergic responses in the shark.
Schwartz, S. L. and Borzelleca, Joseph F.
Tox. Appl. Pharmacol. 12: 307, 1968.

A-21 Adrenergic blood pressure responses in the shark.
Schwartz, S. L. and Borzelleca, Joseph F.
Proc. Shark Research Panel of Am. Inst. Biol. Sci.
26 April 1968

A-22 Effect of EDTA and EGTA on bladder stone formation in rats.
van't Riet, B., O'Rear, C. E. Wynn, J. E., and Joseph F. Borzelleca
Tox. Appl. Pharmacol. 14:638, 1969.

A-23 Factors modifying excretion of salicylate by the dog, comparison of urinary and salivary routes.
J. W. Putney, Jr., and Joseph F. Borzelleca
Tox. Appl. Pharmacol. 16: 23, 1970.

A-24 A toxicological evaluation of pentachloronitrobenzene (PCNB)
Borzelleca, Joseph F., Larson, P. S., Hennigar, G. R. and Kuchar, E. J.
Pharmacologist 12: 208, 1970.

A-25 Metabolism of pentachloronitrobenzene in the beagle dog, rat and cow.
Kuchar, E. J., Borzelleca, Joseph F. and Larson, P. S.
Pharmacologist 12: 208, 1970.

A-26 Studies on salicylate biotransformation by the salivary gland.
Putney, J. W. and Borzelleca, Joseph F.
Pharmacologist, 12: 272, 1970.

A-27 The role of pharmacology in the training of toxicologists.
Borzelleca, Joseph F.
Pharmacologist, 12: 217, 1970.

A-28 Hydrolysis and excretion of esters of EDTA and EGTA after oral administration to rats.
Borzelleca, Joseph F. and van't Riet, B.
Va. J. Sci. 29:143; 1970.

A-29 A model for drug movement across the salivary epithelium.
Putney, J. W. and Borzelleca, J. F.
Va. J. Sci. 21:147, 1970.

A-30 Mechanisms of C^{14}-salicylate uptake by submaxillary gland slices.
Putney, J. W., Jr. and Borzelleca, J. F.
Fed. Proc. 30: 448 Abs., 1971.

A-31 A Toxicologic Evaluation of 5-ethoxy-3-trichloromethyl 1-1,2,4-thiadiazole (TERRAZOLE®).
Borzelleca, J. F., Larson, P. S., Hennigar, G. R., and Kuchar, E. J.
Tox. Appl. Pharmacol. 19: 79, 1971.

A-32 Participation of extracellular hydrogen ion in the efflux of nicotine-^{14}C from submaxillary gland cells.
Putney, J. W., Jr. and Borzelleca, J. F.
Pharmacologist 13: 652, 1971.

A-33 Active uptake of ^{14}C-salicylic acid by rat kidney cortex slices.
Putney, J. W.Jr. and Borzelleca, J. F.
Fed. Proc. 31: 518, 1972.

1. Factors influencing pentobarbital sleeping time in mice.
Borzelleca, Joseph F. and R.W. Manthei.
Arch. Int. Pharmacodynamie III: 296, 1957.

2. Studies of the contribution of bladder absorption to the physiological changes induced by pentobarbital.
Borzelleca, Joseph F.
J. Pharm. Exp. Therap. 129: 305, 1960.

3. The absorption of nicotine from the urinary bladder of the dog.
Borzelleca, Joseph F.
Arch. Int. Pharmacodynamie 133: 444, 1961.

4. The cardiovascular and respiratory effects of (-) - cotinine.
Borzelleca, Joseph F., E.R. Bowman and H. McKennis, Jr.
J. Pharm. Exp. Therap. 137:313, 1962.

5. Drug absorption from the urinary tract of the rat. Nicotine.
Borzelleca, Joseph F.
Arch. Int. Pharmacodyn. 143:595, 1963.

6. Influence of saline and glucose infusions on the course of barbiturate intoxication.
Borzelleca, Joseph F.
Arch. Int. Pharmacodyn. 146: 163, 1963.

7. Toxicologic studies on a preparation of p-tertiary octylphenoxy-polyethoxy ethanols (Trition X-405).
Larson, P.S., J. F. Borzelleca, et al.
Toxicol. Appl. Pharmacol. 5: 782, 1963.

8. Studies on the chronic oral toxicity of monomeric ethyl acrylate and methyl methacrylate.
Borzelleca, Joseph F., P.S. Larson, et al.
Toxicol. Appl. Pharmacol. 6: 29, 1964.

9. Drug movement from the isolated urinary bladder of the rabbit.
Borzelleca, Joseph F.
Arch. Int. Pharmacodyn. 154: 40, 1965.

10. Acute toxicity of some perhalogenated acetones.
Borzelleca, Joseph F. and D. Lester.
Toxicol. Appl. Pharmacol. 7: 592, 1965.

11. Studies on the mechanisms of drug movement from the isolated urinary bladder.
Borzelleca, Joseph F.
J. Pharm. Exp. Therap. 148: 111, 1965.

12. Rabbit urinary bladder potentials.
Borzelleca, Joseph. F.
Invest. Urol. 3: 77, 1965.

13. The excretion of drugs in saliva. Antibiotics.
Borzelleca, Joseph F. and H. Cherrick.
J. Oral Therap. Pharmacol. 2: 180, 1965.

14. Drug absorption from the rectum. I.
Lowenthal, W. and J. F. Borzelleca
J. Pharm. Sci. 54: 1790, 1965.

15. Drug absorption from the rectum. II.
Borzelleca, Joseph F. and W. Lowenthal
J. Pharm. Sci. 55: 151, 1966.

16. Prolongation of barbiturate sleeping time in mice by stimulation of the reticuloendothelial system.
Wooles, W. R. and J. F. Borzelleca.
J. Reticuloendo. Soc. 3: 41, 1966.

17. Toxicologic studies on monochloroacetaldelhyde 2, 4-dinitrophenylhdrazone, a foliar fungicide.
Ambrose, A.M., J.F. Borzelleca, et al.
Toxicol. Appl. Pharmacol. 8: 472, 1966.

18. The effect of acute and prolonged salicylate administration on liver and plasma triglyceride levles and dietary-induced hypercholesterolemia.
Wooles, W. R., J. F. Borzelleca, and G. W. Branham.
Toxicol. Appl. Pharmacol. 10: 1-7, 1967.

19. Excretion of drugs in saliva. Salicylate, Barbiturate, Sulfanilamide.
Borzelleca, Joseph F. and C. H. Doyle.
J. Oral Therap. Pharmacol. 3: 104, 1967.

20. A kinetic analysis of drug movement from the isolated urinary bladder of the rabbit.
Borzelleca, Joseph F. and W. Lowenthal.
Arch. Intern. Pharmacodyn. 166: 26, 1967.

21. Pharmacological effects of some nicotine metabolites and related compounds.
Kim, K.S., J.F. Borzelleca, H. McKennis, Jr. and E. R. Bowman
J. Pharmacol. Exper. Therap. 161: 59, 1968.

22. The effect of DMSO on drug movement through the wall of the urinary bladder of the rabbit
Borzelleca, Joseph F., T. Harris and S. Bernstein
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34. Toxicologic studies on 2,4-dichlorophenyl-p-mitrophenyl ether.
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Committee man

CURRICULUM VITAE

Name: Bert Nichols La Du, Jr.

Date and Place of Birth: November 13, 1920 - Lansing, Michigan

Marital Status: Married - 4 children

Education:

Michigan State College	1943 - B.S. (Chem.)
University of Michigan Medical School	1945 - M.D.
University of California (Berkeley)	1952 - Ph.D.(Biochem.)

Positions Held:

Nine months' rotating internship, Rochester General Hospital, Rochester, N.Y. (California State Board Examination - Licenced Jan., 1950) (New York, Licensed 1963)	1945-46
Teaching Assistant, Dept. of Biochemistry, Michigan State College	1946-47
Research Assistant, Dept. of Biochemistry, U. of California	1947-50
Research Associate, New York University, Research Service Goldwater Memorial Hospital, New York, N.Y.	1950-53
Instructor in Dept. of Medicine, N.Y.U. Medical School	1951-53
Senior Asst. Surgeon, U.S. PHS, National Heart Institute, assigned to Goldwater Memorial Hospital, New York, N.Y. Nov.	1950-53
Surgeon, U.S. PHS, National Heart Institute, National Institutes of Health, Lab. Chem. Pharm.	1954-57
Surgeon, U.S. PHS, National Institute of Arthritis & Metabolic Diseases, NIH, Clin. Invest.	1957-58
Senior Surgeon, U.S. PHS, National Institute of Arthritis & Metabolic Diseases, NIH, Clin.Invest.	1958-61
Consultant in Research - Graduate Council of the George Washington University, Washington, D.C.	1959-63
Medical Director, U.S. PHS, National Institute of Arthritis & Metabolic Diseases, NIH, Clin. Invest.	1961-63
Sabbatical Leave: Galton Laboratory, University College, London	1962-63
Professor and Chairman, Dept. of Pharmacology, New York University Medical School, New York, N.Y.	Sept. 1963-
Visiting Pediatrician, Bellevue Hospital and University Hospital	1963-

Military Service: U.S. Army, ASTP (Med.) Ann Arbor, Michigan

Scientific Societies:

Sigma Xi
American Association for the Advancement of Science
American Chemical Society
New York Academy of Science
American Society of Biological Chemists
American Society for Pharmacology and Experimental Therapeutics
American Society of Human Genetics
The Biochemical Society (Great Britain)
Alpha Omega Alpha

-continued-

Other Activities:

Member, 1971-, Board of Scientific Advisors, Roche Institute of Molecular Biology.

New York Academy of Sciences: Member, 1950-; Fellow, 1969-.
Vice Chairman, Biochemical Division 1964-1965; Chairman, 1966-1967.
Member of Scientific Council 1968, Board of Governors 1968-1972.
Member of Conference Organization Committee 1965- ; Cochairman 1967- .
President Elect 1969-1970; President, 1970.

American Society for Pharmacology and Experimental Therapeutics;
Member 1960- , Member of Committee on Professional and Educational Affairs 1969-1970; Member, Nominations Committee 1968 and 1970; Member, Ad Hoc Committee on Intersociety Relations 1968-1969; Chairman, Ad Hoc Committee for Drug Metabolism 1970- ; Chairman, Division of Drug Metabolism 1972; Secretary-Treasurer Elect of Society 1972.

Member, Association for Medical School Pharmacologists 1968- , Council Member 1968-1969.

Member of Editorial Board, Biochemical Pharmacology 1966-1968.

Member of Editorial Board, Molecular Pharmacology 1967-1968.

Member of Editorial Board, Journal of Pharmacology and Experimental Therapeutics, 1964-1967, Field Editor in Biochemical Pharmacology 1968-1970.

Member of Metabolism Study Section, National Institutes of Health 1964-1968; Chairman 1967-1968.

Member of Pharmacology-Toxicology Review Committee, National Institute of General Medical Sciences 1969- ; Member of Steering Committee of the Pharmacology-Toxicology Program 1970; Chairman, 1972-1973.

Member of the Committee on Biochemical Studies in Evaluating Drug Toxicity, Subcommittee of the Drug Research Board, National Academy of Sciences-National Research Council 1964-1968.

Member of the Committee on Problems of Drug Safety, Drug Research Board, NAS-NRC 1968- .

Consultant to the Children's Bureau, Technical Committee for Clinical Programs for Mentally Retarded Children 1962-1965.

Associate, the University Seminar on Genetics and the Evolution of Man, Columbia University 1965- .

Consultant in Pharmacology to the Office of the Chief Medical Examiner of the City of New York 1967- .

Member of the Dean's Advisory Committee-New York University-VA Hospital 1969- .

Member of the Committee on Identification on Epidemiology of Metabolic Discrasias, International Union of Nutritional Sciences 1967-1970.

-continued-

Member, External Advisory Committee for the Clinical Pharmacology and Cancer Chemotherapy Center, Yale University School of Medicine 1970- .

Director, First Workshop on Drug Metabolism at New York University Medical School, May 1966; Visiting Faculty Member of Second Workshop, George Washington University 1967; Visiting Faculty Member, Third Workshop, University of California 1968.

Co-chairman with Dr. W. Kalow of First International Conference on Pharmacogenetics, New York Academy of Sciences, October 1967.

Workshop Co-chairman with Dr. J. Dancis in Conference on Pediatric Pharmacology, Wahsington D.C., February 1967.

Co-chairman with Dr. R. Baer of Symposium on Pharmacology of Selected Drugs used in Dermatology, Departments of Dermatology and Pharmacology, New York University, October 1969 (Post-Graduate Medical School Sponsorship).

Co-director with Z. Ovary of First Workshop on Immunopharmacology at New York University Medical School, November 1971.

Chairman, Panel on Narcotics, Health Research Council, Department of Health, New York City, 1972- , and Chairman of Technical Advisory Committee on Narcotic Antagonists Research Program, Department of Health, New York City 1972- .

Other New York University Medical School Activities:

Member, University Hospital Pharmacy and Formulary Committee, 1967-1969; Clinical Research Center Review Committee 1968- , Basic Science Planning Committee 1967- , M.D., Ph.D. (Medical Scientist Training Program) Committee 1965- , Preclinical Examining Board 1963- , Honors Program, 1963- , Genetics Training Program 1964- , Surgical Training Program 1966- , Dean's Search Committee 1969. Chairman, Central Curriculum Committee, 1969- ; Chairman, Second Year Curriculum Committee 1969- ; Director, Genetics Training Program, 1968-1969; Director, Pharmacology Training Program 1965- ; Principal Investigator of Program-Project Grant GM 17184 (Genetic variations in man which modify drug toxicity 1969- ; Coinvestigator with V. Zannoni, AM 09942 (phenylalanine metabolism *in vivo* and *in vitro*) 1964- .

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38. La Du, B.N. Effects of choline on normal and atypical esterases of human serum. (Abstract) Presented at the International Symposium on Drug Metabolism, Skokloster, Sweden, June 2-4, 1971.

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63. La Du, B.N., Mandel, G. and Way, E.L. Editors. Fundamentals of Drug Metabolism and Disposition. Williams and Wilkins Co., Baltimore, 1971.

64. La Du, B.N. and Dewald, B. Genetic regulation of plasma cholinesterase in man. Advances in Enzyme Regulation 9: 317-332 (1971). (Editor G. Weber) Pergamon Press, New York and Oxford.

65. La Du, B.N. Farmacogenitica. Medica Tribuna (Spanish) 2, no. 4, February, 1971.

66. La Du, B.N. The genetics of drug reactions, Hospital Practice 6, 97-100, 1971.

67. La Du, B.N. and Gjessing, L. Tyrosinosis and Tyrosinemia in The Metabolic Basis of Inherited Disease. Eds. J.B. Stanbury, J.B. Wyngaarden, and D.S. Fredrickson, New York, McGraw-Hill, 3rd ed., 1972, p. 296-307.

68. La Du, B.N. Histidinemia in The Metabolic Basis of Inherited Disease. Eds. J.B. Stanbury, J.B. Wyngaarden, and D.S. Fredrickson, New York, McGraw-Hill, 3rd ed., 1972, p. 338-350.

69. La Du, B.N. Alcaptonuria in The Metabolic Basis of Inherited Disease. Eds. J.B. Stanbury, J.B. Wyngaarden, and D.S. Fredrickson, New York, McGraw-Hill, 3rd ed., 1972, p.308-325.

70. La Du, B.N. Genetic determinants in drug action; chapter in Pharmacology and the Skin, Advances in the Biology of Skin, Vol. XII. Eds. W. Montagna, R.B. Stoughton, and E.J. Van Scott, New York, Appleton-Century-Crofts, 1972, p. 95-109.

71. La Du, B.N. The isoniazid and pseudocholinesterase polymorphisms. (Pharmacogenetic Symposium) Fed. Proc. 31:1276-1285, 1972.

72. La Du, B.N. Pharmacogenetics: Defective enzymes in relation to reactions to drugs. Ann. Rev. Med. 23: 453, 1972.

Committeeman

CURRICULUM VITAE
DR. JOHN R. McCOY

Dr. McCoy, a 1940 graduate of the School of Veterinary Medicine of the University of Pennsylvania, was born in Trenton, New Jersey fifty-six years ago, and was educated in the Trenton Public School System. His pre-veterinary education was taken at Rutgers University in New Brunswick, New Jersey.

He served as a resident intern at the University of Pennsylvania Veterinary Hospital 1939-40, then entered small animal practice for a short time as an associate in the Parker Animal Hospital in Red Bank, N. J., followed by entry into general practice in Paterson, N. J. in late 1940, until called to military service in 1943.

His military career included stations at the Food Inspection School, New York Port of Embarkation, Fort Snelling, Minnesota and the South Pacific Theatre. His service career terminated in November, 1946, following thirty months of overseas duty, with the rank of Major in the Veterinary Corps.

Dr. McCoy joined the New Jersey Bureau of Animal Industry as a senior field inspector for tuberculosis and brucellosis control following his discharge from service until 1948, when he became associated with Dr. Mark L. Morris in Raritan Hospital for Animals and Raritan Laboratories, Inc. in New Brunswick.

It was here that he began the investigation of chemotherapy of cancer in dogs and aided in the study of therapeutic diets in dogs, undertaken with cooperating basic research scientists from the Bureau of Biological Research of the College of Arts and Sciences of Rutgers University in New Brunswick, in which he was asked to accept an associate professorship in 1950.

His preparation for research in canine neoplastic diseases included study with Dr. Willard H. Eyestone at the National Cancer Institute, Bethesda, in 1950, several years of human pathology at St. Peter's General and Middlesex General Hospitals in New Brunswick under Pathologist Sylvan E. Moolten, M. D., and one year of residency with Dr. David Coffin, Veterinary Pathologist, then Director of Research of the Caspary Institute for Veterinary Medical Research in New York City.

During this time Dr. McCoy continued to direct the Canine Cancer Clinic at Rutgers. In 1963 he was promoted to Research Professor in the Bureau, and elected as Chairman, University Section on Comparative Pathology in 1965. He has been privileged to represent the University at hearings on laboratory animal welfare at the federal and state level, had university-wide responsibility for the design and operation of vivaria on three Rutgers campuses, and has administered the annual short courses given for veterinarians at Rutgers in conjunction with the New Jersey Veterinary Medical Association, as well as supplying consultation to the region's veterinary practitioners in hospital design, clinical and anatomical pathology, and chemotherapy of canine proliferative diseases.

He has appeared before international, national, state and local veterinary medical, human medical, dental and experimental biological societies, as well

as agriculture associations, civic and church groups, as a representative of his profession.

From 1956-58 he served as a member of the Tumor Study Group, Middlesex General Hospital, an interdisciplinary project investigating the chemotherapy of human neoplastic diseases.

In 1957, Dr. McCoy founded the Edgebrook Veterinary Hospital in East Brunswick, New Jersey, a small animal unit, until its volume dictated its sale and continuation as a two-man practice in 1963, owing to the press of university duties, which included designing the most complex and costly part of the new Medical School at Rutgers, the Vivarium.

In 1961, with Thomas J. Russell, Ph.D., a biochemist, he co-founded Biodynamics, Inc., a toxicological testing laboratory for new drugs and food additives, which now employs some 100 scientific personnel in its 130 acre property in East Millstone, N. J.

In addition, he serves as consulting experimental pathologist to many pharmaceutical and nutrition research institutes, companies, foundations and universities. He was co-editor with Dr. William E. Ribelin of "The Pathology of Laboratory Animals." More than twenty papers on tumor-host relationships (including chapters in two interdisciplinary books on the subject), cancer chemotherapy, canine periodontitis, canine and feline nutrition, cardiovascular disease, leishmaniasis and comparative medicine have been published in veterinary, medical, dental and experimental biological research journals.

Concurrently, his service in organized veterinary medicine began in 1952, when he was elected Secretary of the Veterinary Medical Association of New Jersey in which post he served as well as on numerous committees, until 1958, meantime serving as that constituent association's representative to the AVMA House of Delegates from 1959 through 1963, when he was elected to the AVMA Executive Board, serving District II (Del., D.C., Md., N.J., Pa., Va.) and, in 1966 when he was elected Chairman of the AVMA Executive Board annually for an unprecedented three terms, terminating his office at the Minneapolis convention in July of 1969. During his time as chairman, he served concurrently as President of the AVMA Foundation. In 1970 he was elected President-elect of the association, and was inaugurated as the 108th President in July, 1971.

His services to the New Jersey Veterinary Medical Association were recognized through a Dedicated Service Award presented by AVMA President Robert J. Schroeder at the 1968 annual meeting of that organization. In 1970 he was elected President-elect of the New Jersey association, and inaugurated in April, 1971. He is now Immediate Past President.

Dr. McCoy, besides NJVMA and AVMA memberships, serves as a member of the Metropolitan New Jersey Veterinary Medical Association, the Conference of Research Workers in Animal Diseases, Society of Toxicology, New Jersey Academy of Science, New Jersey Public Health Association, American Public Health Association, American Association of University Professors, Federation of American

Societies of Experimental Biology, International Society for Comparative Leukemia Research, American Association for the Advancement of Science, for which he serves as a reviewer of new books, the American Association of Laboratory Animal Science, and the American Association for the Accreditation of Laboratory Animal Care, which he serves as a consultant and the honorary science Society of the Sigma Xi. He is a Fellow of the New York Academy of Sciences. In May 1971 he was recipient of the Diplomate Award of the XIXth World Veterinary Congress. In 1972 he and others founded the Society of Pharmacological and Environmental Pathologists, which he serves as a councillor on the Executive Board, and as Chairman of the Membership Committee. He was also appointed a member of the Select Committee on GRAS Substances of the Federation of American Societies for Experimental Biology, Life Sciences Research Office, to evaluate data being collected on over 600 food additives contained in the Generally Recognized as Safe List maintained by the Food and Drug Administration.

He has served as chairman of the University Committee on Laboratory Animal Care, and is one of its veterinary members; is a member of an advisory committee to the administrator of P. L. 89-544, the federal laboratory animal welfare act. He is a consultant to NIH in the areas of cleft palate research (Dental Institute) and Animal Resources Branch. He is listed in American Men of Science, Leaders in American Science and Who's Who in the East.

In January 1970, he was appointed Professor of Comparative Pathology and Director of the Vivarium in Rutgers Medical School, and Adjunct Research Professor in the Bureau of Biological Research of Rutgers University.

Committeeman

CURRICULUM VITAE

SANFORD ARTHUR MILLER

Born: May 12, 1931, Brooklyn, New York

Married: Judith W. Cohen, 1958

Children: Two daughters, Wallis Jo, b. 1961; Debra Lauren, b. 1968

Academic Degrees:

B.S.	City College of New York	1952 (Chemistry; Biology)
M.S.	Rutgers University	1956 (Physiology and Biochemistry)
Ph.D.	Rutgers University	1957 (Physiology and Biochemistry)

Appointments and Experience:

1951	Junior Chemist, Electronics Branch, Army Chemical Center, Maryland (summer)
1952	Chemist, Applied Research Branch, Army Chemical Center, Maryland
1953 - 1954	Assistant to Chief Toxicologist, Army Medical Center, Washington, D.C.
1954 - 1955	Research Assistant, Bureau of Biological Research, Rutgers University
1955 - 1957	Teaching Assistant, Physiology and Biochemistry, Rutgers University
1957 - 1959	Research Associate, Department of Food Technology, Massachusetts Institute of Technology
1959 - 1965	Assistant Professor, Nutritional Biochemistry, Department of Nutrition and Food Science, Massachusetts Institute of Technology

Appointments and Experience (cont.):

1965 - 1970	Associate Professor of Nutritional Biochemistry, Department of Nutrition and Food Science, Massachusetts Institute of Technology
1970 - date	Professor of Nutritional Biochemistry; Director, Training Program in Oral Science, M.I.T.
1963 - date	Visiting Lecturer in Nutrition, Tufts University School of Dental Medicine

Military Service:

Army Medical Corps, Corporal, Assistant to the Chief Toxicologist, 1953 - 1954.

Membership Advisory Groups:

Board of Advisors, Celanese Corporation of America, 1964-1967; Advisory Committee on Nutrition, Animal Care Panel, 1963-1968; Division of Space Medicine, NASA Manned Space Flight Center, 1969; Committee on Food Safety, White House Conference on Food and Nutrition, 1969; Task Force on Environmental Health, Governor's Committee, 1969-1970; Committee on Growth and Development, NICHD, 1972-date; Chairman, Ad Hoc Committee, NINDS, 1972-date; Expert Committee on GRAS Substances, FASEB, FDA, 1972-date.

Consultant:

Several industrial organizations in the U.S. and abroad.

Professional Affiliations and Memberships:

American Chemical Society, 1952; American Association for the Advancement of Science, 1955; Sigma Xi, 1957; New York Academy of Sciences, 1958; Institute of Food Technologists, 1958; Animal Care Panel, 1960; Honorary Fellow, Mark L. Morris Animal Care Panel, 1960; American Institute of Nutrition, 1963; Society for Teratology, 1966; Perinatal Research Society, 1969; American Institute of Dental Research, 1970; Society for Pediatric Research, 1971.

Offices Held:

American Institute of Nutrition -	Chairman, Committee on Biochemical Nutrition, 1967-1969
	Member, National Program Committee, 1967-date

Offices Held (cont.):

Institute of Food Technologists	-	National Councilor, 1966-1969
		Secretary, Northeast Section, 1968-1969
		Vice Chairman, Northeast Section, 1969-1970
		Chairman, Northeast Section, 1970-1971
		National Chairman, Committee on Nutrition Education, 1969-date
Federation of the American Society of Experimental Biology (FASEB)	-	Meetings Committee 1972
Gordon Research Conferences	-	Vice Chairman, 1972

Research Interests:

General: Regulation and control of metabolism

Specific: Perinatal development of the infant with particular reference to dietary effects; Development of oral tissues; Relationships among diet, metabolic energy and structure of dietary energy sources; Synthetic dietary energy sources and other unique sources of nutrients, e.g. single cell protein

Teaching Interests:

Basic nutrition; comparative nutritional biochemistry; nutrition, growth and development.

Author or co-author of more than 75 original scientific articles, reviews and book chapters.

PUBLICATIONS

I. *Original Scientific Articles*

Studies on the nutrition of the cat.
Allison, J.B., S.A. Miller, J. McCoy and M. Brush. North Am. Vet., 37:38, 1956.

Determination of nitrogen balance indexes of dietary proteins in the cat.
Allison, J.B., S.A. Miller and J. McCoy. Fed. Proc., 15:342, 1956.

The dietary nitrogen requirements of the cat.
Miller, S.A. and J.B. Allison. J. Nutr., 64:493, 1958.

Design of a new small animal metabolism cage.
Miller, S.A., H.A. Dymsza, A. Cornell and A.M. Gauthier. Toxicol. and Appl. Pharmacol., 3:25, 1961.

The nutritive value of Maine sardines. I. The chemical composition.
Proctor, B.E., S.A. Miller, S.A. Goldblith, E.L. Wick. J. Food Sci., 26:283, 1961.

The nutritive value of Maine sardines. II. Animal feeding studies.
Miller, S.A., M. Goswami, B.E. Proctor and H.A. Dymsza. J. Nutr., 74:70, 1961.

Cholesterolemia and cardiovascular sudanophilia in rats fed sardine mixtures.
Miller, S.A., H.A. Dymsza and S.A. Goldblith. J. Nutr., 77:397, 1962.

The nutritive value of sardines.
Miller, S.A., H.A. Dymsza and S.A. Goldblith. In: "Fish in Nutrition", ed. by E. Heen and R. Kreuzer, Fishing News Ltd., London, p. 295, 1962.

Effect of natural and purified diets on survival of X-irradiated mice.
Dymsza, H.A., S.A. Miller and J.F. Maloney. Rad. Res., 18:461-472, 1963.

Artificial feeding of neonatal rats.
Miller, S.A. and H.A. Dymsza, Science, 141:517, 1963.

Equilibration of the laboratory rat following exposure to shipping stresses.
Dymsza, H.A., S.A. Miller, J.F. Maloney and H.L. Foster. Laboratory Animal Care, 13:60, 1963.

Influence of artificial diet on weight gain and body composition of the neonatal rat.
Dymsza, H.A., D.M. Czajka and S.A. Miller. J. Nutr., 84:100, 1964.

Urinary metabolites in the omega oxidation of 2,4-dimethyl-heptanoic acid.
Tannenbaum, S.R. and S.A. Miller. Nature, 208:452, 1965.

The utilization by the rat of 1,3-butanediol as a synthetic source of dietary energy.
Miller, S.A., H.A. Dymsza. J. Nutr., 91:79, 1967.

The influence of dietary osmolarity on survival of neonatal rats.
Miller, S.A., D.M. Czajka and H.A. Dymsza. Biol. Neonat., 11:197, 1967.

Effect of cell fragmentation on nutritive value of *Bacillus megaterium* protein.
Tannenbaum, S.R. and S.A. Miller. Nature, 214:1261, 1967.

The metabolism *in vivo* of 2,4-dimethylheptanoic acid-alpha methyl-C^{14}.
Miller, S.A. and S.R. Tannenbaum. Biochem. Biophys. Acta, 152:511, 1968.

Tyrosine transaminase development of daily rhythm in liver of neonatal rat.
Honova, E., S.A. Miller, R.A. Ehrenkranz, and A. Woo. Science, 162:999, 1968.

Protein synthesis in neonatal rat pups maintained artificially on a low protein diet.
Czajka, D.M., S.A. Miller and A.B. Browning. Biol. Neonat., 13:291, 1969.

Hepatic protein metabolism in the infant rat.
Czajka, D.M. and S.A. Miller, A.B. Browning. J. Nutr., 100:309, 1970.

The effect of undernutrition on growth, development and caries of the rat dentition.
Navia, J.M., L.P. DiOrio, L. Menaker and S.A. Miller. J. Dent. Res., 49:1091, 1970

"Adventitious and Intrinsic Components Affecting Processing", Miller, S.A. in Engineering of Unconventional Protein Production (Bieber, H., editor), Publ. by Amer. Inst. of Chem. Eng. Symposium Series, No. 93, Vol. 65, 1969.

Nutrition in the Neonatal Development of Protein Metabolism.
Miller, S.A. Federation Proceedings, 29:1497, 1970.

Utilization of L-Methionine Sulfoxide by the Rat.
Miller, S.A., S.R. Tannenbaum, and A. Seitz. J. Nutrition, 100:909, 1970.

Alkaline and Acid Phosphatase Activities During Growth of Long Bones and Mandibles.
Kuftinec, M.M. and S.A. Miller. Calcified Tissue Research, 9:173-178, 1972.

The Protein Requirement of the Neonatal Rat.
Czajka-Narins, D.M., S.A. Miller, A.M. Browning. J. Nutr., In Press.

Regulation of Bone Growth in the Neonatal Rat. I. Biochemical Aspects of Organic Matrix Formation.
Kuftinec, M.M. and S.A. Miller. Calcified Tissue Research, In Press.

Changes in Nucleic Acid and Protein Content During Development of the Rat Submaxillary Salivary Gland.
Menaker, L. and S.A. Miller. Archives of Oral Biology, In Press.

Regulation of Submandibular Salivary Gland Protein Synthesis in the Developing Rat. A Developmental Study of Ribonuclease and Ribonuclease Inhibitor Activity.
Menaker, L. and S.A. Miller. Biochemical J., In Press.

Regulation of Submandibular Salivary Gland Protein Synthesis in the Developing Rat. The Effect of Diet on Polysome Isolation and Amino Acid Incorporation. Biochemical J., In Press.

The Biochemical Growth and Development of the Palate, Maxilla, Mandible and Tongue in the New Zealand White Rabbit.
DePaola, D.P., S.A. Miller, J.F. Drummond. Arch. Oral Biol., In Press.

II. *Published Reports, Book Chapters and Reviews*

High energy metabolites.
Miller, S.A., S.A. Goldblith, E. Wick, P.M. Richardson and H.A. Dymsza. WADD Technical Report, Wright Air Development Div., Dayton, Ohio, 60-575, 1960.

The intermediary metabolism and interrelationships of carbohydrates, proteins and fats.
Miller, S.A. in: Nutrition and Clinical Dentistry (A.E. Nizel, editor), W.B. Saunders, Philadelphia, pp. 77-89, 1960.

Dietary interrelationships and antimetabolites.
Miller, S.A. in: Nutrition and Clinical Dentistry, (A.E. Nizel, editor), W.B. Saunders, Philadelphia, pp. 224-242, 1960.

Investigation of compounds of high caloric density.
Miller, S.A., H.A. Dymsza, E.L. Wick and S.A. Goldblith. AMD Technical Report. Aerospace Medical Division (AFSC), Wright-Patterson Air Force Base, Ohio, 1962.

Utilization of 1,3-butanediol as a synthetic source of dietary energy.
Miller, S.A. and A. Browning. Proc. Sixth Int. Cong. of Nutr., ed. by C.F. Mills and R. Passmore, Livingstone Ltd., London, p. 498, 1964.

Nutrition of the infant rat. Unidentified growth factors in rat's milk.
Miller, S.A., H.A. Dymsza and D.M. Czajka. Ibid., p. 571.

Further studies of compounds of high caloric density.
Miller, S.A., H.A. Dymsza, S.R. Tannenbaum and S.A. Goldblith. Technical Documentary Report, Aerospace Medical Div. (AFSC), Wright-Patterson Air Force Base, Ohio, 1964.

Metabolic studies of energy dense compounds for aerospace nutrition.
Miller, S.A., H.A. Dymsza, S.R. Tannenbaum and S.A. Goldblith. Technical Report, Aerospace Medical Div. (AFSC), Wright-Patterson Air Force Base, Ohio, 1965.

High energy nonfat nutrient sources.
Miller, S.A. in: "Report of the Conference on Nutrition in Space and Related Waste Problems", NASA SP-70, 1965.

Energy and calorie metabolism; Carbohydrates in nutrition; Fats in nutrition; Proteins in nutrition; Appetite and control of food intake.
Five chapters in The Science of Nutrition and its Application (A.E. Nizel, editor), W.B. Saunders, Philadelphia, 1966.

Use of the infant rat in the study of toxins and infectious agents.
Miller, S.A. Technical Report. U.S. Army Medical Research & Development Command, 1968.

Effects of malnutrition on development.
Miller, S.A. in: Malnutrition, Learning and Behavior. (N.S. Scrimshaw and J.E. Gordon, editors) M.I.T. Press, Cambridge, Mass. p. 229, 1968.

Nutritional factors in single cell protein.
Miller, S.A. in: Single Cell Protein (R.I. Mateles and S.R. Tannenbaum, editors), M.I.T. Press, Cambridge, Mass., p. 79, 1968.

Protein metabolism during growth and development.
Miller, S.A. in: Mammalian Protein Metabolism (H.N. Munro, editor), Academic Press, New York, Vol. III, p. 183, 1969.

III. *Abstracts*

Determination of morphine.
Goldbaum, L.R. and S.A. Miller. Fed. Proc., 13:358, 1954.

The protein metabolism of the cat.
Allison, J.B. and S.A. Miller. Fed. Proc., 16:476, 1957.

The utilization of 1,3-butanediol as a carbohydrate substitute by the male rat.
Miller, S.A. and H.A. Dymsza. Fed. Proc., 21:389, 1962.

Nutrition of the infant rat.
Miller, S.A., H.A. Dymsza and D.M. Czajka. Fed. Proc., 22:610, 1963.

Bioassay for caloric value and energy utilization of dietary components.
Dymsza, H.A. and S.A. Miller. Fed. Proc., 22:610, 1963.

Studies of sulfur amino acid nutrition in the adult cat.
Rambaut, P.C. and S.A. Miller. Fed. Proc., 24:373, 1965.

The metabolism of 1,3-butanediol by the rat.
Miller, S.A., A. Browning and P. Turransky. Fed. Proc., 24:439, 1965.

A purified diet for the artificial feeding of neonatal rats.
Czajka, D.M., S.A. Miller and A. Browning. Fed. Proc., 24:720, 1965.

The relative importance of protein and calories in neonatal rat growth.
Kreutler, P.A., S.A. Miller, L. Menaker and L.P. DiOrio. Fed. Proc., 28:487, 1969.

The effect of diet on the polysome pattern in the neonatal rat.
Honova, E., S.A. Miller, P.A. Kreutler and B.S. Baliga. Fed. Proc., 28:488, 1969.

The metabolism in vivo of 1,3-butanediol-1-C^{14}, 1,3-butanediol-4-C^{14}, and 1,3-heptanediol-1-C^{14} in Vitamin B_{12}-deficient rats.
Nahapetian, A. and S.A. Miller. Fed. Proc., 29:2923, 1970.

Dietary Regulation of Hepatic Tyrosine Transaminase in the Neonatal Rat.
Kreutler, P.A. and S.A. Miller. Fed. Proc., 29:670, 1970.

Changes in Nucleic Acids and Protein During Bone Growth.
Kuftinec, M.M., S.A. Miller and J.F. Drummond. IADR Abstracts (49th Session), Abstract #374, p. 146, 1971.

Ribonuclease (RNase) and Ribonuclease Inhibitor (RN-I) in Neonatal Rat Submaxillary Salivary Gland (SMSG).
Menaker, L., S.A. Miller and C. Alvarez. IADR Abstracts (49th Session), Abstract #427, p. 159, 1971.

Organic Matrix Formation of Bone During Rat Neonatal Development.
Kuftinec, M.M. and S.A. Miller. IADR Abstract #782, 1972.

Partial Purification of a Collagenolytic Enzyme from Bacteroides melaninogenicus.
Morhart, R.E., S. Irving, A.J. Sinskey, S.A. Miller. IADR Abstract #726, 1972.

Biochemical Changes Associated with Normal Palatal Closure in the Rabbit.
DePaola, D.P., S.A. Miller and J.F. Drummond. IADR Abstract #603, 1972.

Nutritional Iron Deficiency as a Determinant of Host Resistance.
Baggs, R.B. and S.A. Miller. Fed. Proc., Abstract #2797, Vol. 31, Mar.-Apr., 1972.

Committeeman

CURRICULUM VITAE

GABRIEL L. PLAA, Ph.D.
Professor and Chairman
Department of Pharmacology, Faculty of Medicine
University of Montreal

I- REFERENCES

Nationality	:	American
Date of birth	:	May 15, 1930
Place of birth	:	San Francisco, California
Marital Status	:	Married, 8 children
Military Status	:	Veteran, Korean War, 1st Lt., MPC, USAR

II- COLLEGE

1952	B.S.	University of California (major: Criminalistics)
1956	M.S.	University of California (major: Comparative Pharmacology and Toxicology)
1958	Ph.D.	University of California (major: Comparative Pharmacology and Toxicology)

III- ACADEMIC APPOINTMENTS

1954-58	Teaching and Research Assistant, Department of Pharmacology, University of California School of Medicine
1958-60	Instructor, Department of Pharmacology, Tulane University School of Medicine
1960-62	Assistant professor, Department of Pharmacology, Tulane University School of Medicine
1962-63	Assistant Professor, Department of Pharmacology, College of Medicine, State University of Iowa
1963-68	Associate Professor, Department of Pharmacology, College of Medicine, State University of Iowa
1968-	Professor and chairman, Department of Pharmacology, Faculty of Medicine, University of Montreal

IV- PROFESSIONAL EMPLOYMENT

1954-58	Assistant Toxicologist (Part Time), Coroner's Office of the City County of San Francisco

V- NATIONAL COMMITTEES

1963-68	Editorial Board of Toxicology and Applied Pharmacology
1968-	Associate Editor of Toxicology and Applied Pharmacology
1964-65	Chairman, Educational Committee of Society of Toxicology
1965-1970	Editorial Board of Journal of Pharmacology and Experimental Therapeutics
1970-	Field Editor for Toxicology of Journal of Pharmacology and Experimental Therapeutics
1965-69	Toxicology Study Section, Division of Research Grants, National Institutes of Health, USPHS. Chairman, effective July 1, 1967.

V- NATIONAL COMMITTEES (cont'd)

1966-67 Committee on Recruitment Methods, Society of Toxicology

1967-71 Program Committee, American Society for Pharmacology and Experimental Therapeutics, Chairman, effective July 1, 1969

1967- Editorial Board of Essays in Toxicology

1968-69 Program Committee, Society of Toxicology

1968- Member, Medical Research Council of Canada, Committee on Scholars

1968- Associate Editor of Canadian Journal of Physiology and Pharmacology

1970- Member, Medical Research Council of Canada, Grants Committee for Physiology and Pharmacology

1970- Member, Committee on Problems of Drug Safety, National Academy of Sciences, National Research Council (USA)

1971-75 Member, Pharmacology--Toxicology Program Committee, National Institute of General Medical Sciences, National Institutes of Health, USPH.

VI- UNIVERSITY COMMITTEES

1963-68 Medical Education Committee (curriculum) University of Iowa

1964-65 Basic Science Building Committee (new building) University of Iowa

1967-68 Hospital Policy Board, University of Iowa

1968- Chairman, Faculty of Medicine, Committee on Research and Graduate Degrees, University of Montreal

1968- Member, University Subcommittee on Graduate Degrees, University of Montreal

1969- Member, Committee on Medical Education, University of Montreal

1969- Member, University Committee on Research, University of Montreal

VII- HONORS

1967 Achievement Award, Society of Toxicology

1969 Henderson Memorial Lecturer, Canadian Association for Research in Toxicology

VIII- PROFESSIONAL SOCIETIES

American Society for Pharmacology and Experimental Therapeutics
Society of Toxicology
American Academy of Forensic Sciences
American Association for the Study of Liver Diseases
Society for Experimental Biology and Medicine
American Association for the Advancement of Science
Sigma XI
The Pharmacological Society of Canada

PUBLICATIONS

I- LIVRES (aucun)

II- ARTICLES ET MONOGRAPHIES

1952:

PLAA, G.L., D.C. BARRON and P.L. KIRK. Evaluation of textile fibers as evidence. J. Crim. Law and Criminol. 43: 382-398, 1952.

1956:

PLAA, G.L. and C.H. HINE. A method for the simultaneous determination of phenobarbital and diphenylhydantoin in blood. J. Lab. and Clin. Med. 47: 649-657, 1956.

1958:

PLAA, G.L., F.B. HALL and C.H. HINE. Differentiation of barbiturates for clinical and medicolegal purposes. J. Forensic Sci. 3: 201-209, 1958.

PLAA, G.L., E.A. EVANS and C.H. HINE. Relative hepatotoxicity of Seven Halogenated hydrocarbons. J. Pharmacol. Exptl. Therap. 123: 224-229, 1958.

PLAA, G.L., J.M. FUJIMOTO and C.H. HINE. Intoxication from primidone due to its biotransformation to phenobarbital. J.A.M.A. 168: 1769-1770, 1958.

1960:

PLAA, G.L. and C.H. HINE. The effect of carbon tetrachloride on isolated perfused rat liver function. A.M.A. Arch. Indust. Hlth. 21: 114-123, 1960.

FUJIMOTO, J.M., K.B. PEARCE and G.L. PLAA. Barbiturate metabolism as affected by certain agents acting on the liver. J. Pharmacol. Exptl. Therap. 129: 139-143, 1960.

PLAA, G.L. and C.H. HINE. Hydantoin and barbiturate blood levels observed in epileptics. Arch. int. Pharmacodyn. 128: 375-382, 1960.

PLAA, G.L., E.C. McGOUGH, G.J. BLACKER and J.M. FUJIMOTO. Effect of thioridazine and chlorpromazine on rat liver hemodynamics. Am. J. Physiol. 199: 793-796, 1960.

THOMAS, M.C. and G.L. PLAA. A method for the simultaneous determination of sulfobromophthalein sodium (BSP) and its major metabolite in blood. Am. J. Clin. Path. 34: 488-492, 1960.

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1961:

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Commissioner

Vita of Ralph G. H. Siu

Mr. Siu received his B.S. in Chemistry and M.S. in plant physiology from the University of Hawaii and Ph.D. in Bio-organic Chemistry from the California Institute of Technology.

Since 1969, Mr. Siu has been a private consultant. His former professional positions include·

Research Fellow at the California Institute of Technology
Research Associate at Harvard University
Assistant Chemist at U.S. Department of Agriculture
Biochemist, Director of Pioneering Research, and Chief Scientitst of U.S. Army Quartermaster Corps
Research Director and Deputy Director of Research and Engineering of U.S. Army Materiel Command
Chairman of U.S. Army Research Council
Associate Administrator of Law Enforcement Assistance Administration and Director of the National Institute for Law Enforcement and Criminal Justice of U.S. Department of Justice.

Mr. Siu has published over 80 papers in terpene chemistry, food, microbiological physiology, enzyme mechanism, and management. His books include

Microbial Decomposition of Cellulose
Radiation Preservation of Food (Editor)
The Tao of Science
The Man of Many Qualities

He is a recipient of the National Civil Service League Award and U.S. Department of Army Exceptional Civilian Service Decoration with Laurel Leaf Cluster.

Committeeman

CURRICULUM VITAE

John L. Wood, Ph.D., Professor of Biochemistry, College of Basic Medical Sciences, The University of Tennessee Medical Units, Memphis. Born, Homer, Illinois, August 7, 1912. Married, two children.

Education:

Homer Community High School, 1930.
Blackburn College, 1932.
University of Illinois, B.S. in Chemistry, 1934.
University of Virginia, Ph.D. in Chemistry, 1937.

Professional Experience:

Teaching Fellow, Department of Chemistry, University of Virginia, 1934-1937.

Microanalyst in Biochemistry and Research Associate, The George Washington University Medical School, 1937-1938.

Research Assistant, Department of Biochemistry, Cornell Medical College, 1938-1939.

Fellow, Finney-Howell Research Foundation, Harvard University, Department of Chemistry, 1939-1941.

Associate Chemist, Eastern Regional Research Laboratory, U.S.D.A., 1941-1942.

Research Assistant, Department of Biochemistry, Cornell Medical College, 1942-1944.
Assistant Professor, Cornell Medical College, 1944-1946.

Associate Professor, Department of Chemistry, School of Biological Sciences, The University of Tennessee, Memphis, 1946-1950.

Professor, The University of Tennessee, 1950-
Head, Department of Biochemistry, University of Tennessee, 1952-1955.
Chairman, 1955-1967; Professor, 1967-

Professional Societies and Activities:

American Chemical Society, American Society of Biological Chemists, American Association for Cancer Research, AAAS, Society for Experimental Biology and Medicine, Harvey Society, Tennessee Academy of Sciences, Sigma Xi, Phi Lambda Upsilon, American Association of University Professors. Consultant, Medical Division, Oak Ridge

Institute of Nuclear Studies, 1949-1965, Fellow, Summer of 1950, Board of Directors, 1959-1965. Chairman Radioisotope Unit Advisory Committee, Kennedy Veterans Hospital, Memphis 1953-1970. Visiting Scientist, Tennessee Academy of Sciences, 1962-1965.

Honors:

D.Sc. Blackburn College, 1955.
Finney-Howell Fellow, 1939-1941.
Guggenheim Fellow, 1954.
Special Research Fellow, USPHS, 1965.
Participant, Exchange Program, National Academy of Sciences, Polish Academy of Sciences, 1970.
Alumni Distinguished Service Professor, 1971.

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"Phenanthrene Bound to a Protein by Biosynthesis," Samuel V. Molinary and John L. Wood, Biochem. Biophys. Res. Comm., 43, 899 (1971).

CURRICULUM VITAE

Name: Clinton B. Nash

Present Position: Professor of Pharmacology, U.T. Medical Units

Born: January 3, 1918, Gunnison, Mississippi

Academic and Professional Record:

Degrees

1950 - B.S. (Pharmacy), University of Tennessee Medical Units
1952 - M.S. (Pharmacology), University of Tennessee Medical Units
1955 - Ph.D. (Pharmacology), University of Tennessee Medical Units

Memberships

American Society for Pharmacology and Experimental Therapeutics
Society of Toxicology
American Heart Association - Basic Science Council
Society of Experimental Biology and Medicine
Sigma Xi
New York Academy of Sciences
American Pharmaceutical Association, Scientific Section
American Association for Advancement of Science
International Society Biochemical Pharmacology
Tennessee Academy of Science
Rho Chi
Phi Delta Chi

Positions

1950-54 Research Fellow, University of Tennessee
1952-54 Fellow, American Foundation for Pharmaceutical Education
1954-55 Pharmacologist, Research Division, Mead Johnson & Co.
1955-57 Senior Pharmacologist, Mead Johnson & Co.
1957-58 Group Leader, Cardiovascular Pharmacology, Mead Johnson & Co.
1958-60 Assistant Professor, U.T. Medical Units, Department of Pharmacology
1960-63 Associate Professor, U.T. Medical Units, Department of Pharmacology
1963- Professor, U.T. Medical Units, Department of Pharmacology

War Record

1942-43 Aviation cadet
1943-46 Aircraft Pilot, heavy bombardment, European Theater,
Discharged as 1st Lt.

Research Interests

General areas: autonomic and cardiovascular pharmacology and physiology

Specific: influence of barbiturate anesthesia on cardiovascular system, intravascular pressures, [illegible], peripheral blood flows, cardiac output, cardiovascular effects of vasopressin, catecholamines, acidosis, digitalis and reserpine, autonomic blocking agents.

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2. Nash, C. B. and Woodbury, R. A.: The influence of atropine on intraocular pressure in dogs. Am. J. Physiol. 178: 63-67, 1954.

3. Nash, C. B., Davis, F., and Woodbury, R. A.: Cardiovascular effects of anesthetic doses of pentobarbital sodium. Am. J. Physiol. 185: 107-112, 1956.

4. Dowill, G. C., Nash, C. B., and Wheeler, A. G.: Pharmacological and Toxicological Study of Aspirin, Salicylamide, and N-acetyl Para Amino Phenol. J. Am. Pharm. Assoc. (Sci. Ed.) 47: 478-487, 1958.

5. Nash, C. B.: An improved method for drop recording. Am. Pharm. Assoc. (Sci. Ed.) 48: 767, 1956.

6. Davis, F., Nash, C. B., and Woodbury, R. A.: Cardiovascular effects of anesthetic doses of thiopental sodium. Anesthesia and Analgesia 38: 222-228, 1959.

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8. White, Richard P., Nash, Clinton B., Westerbeke, Edward J., and Possenza, Genus J.: Phylogenetic comparison of central actions produced by different doses of atropine and hyoscine. Arch. Int. Pharmacodyn. 132: 349-363, 1961.

9. Nash, Clinton B. and Manley, Emmett S.: Modification of the cardiovascular effects of theophylline by 7-dihydroxypropyl substitution. Arch. Int. Pharmacodyn. 142: 67-73, 1963.

10. White, Richard P. and Nash, Clinton B.: Catechol antagonism to the EEG effects of reserpine, chlorpromazine, pentobarbital, and atropine. Int. J. Neuropharmacol. 2: 249-254, 1963.

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12. Manley, Emmett S., Nash, Clinton B., and Woodbury, R. A.: Cardiovascular responses to severe hypercapnia of short duration. Am. J. Physiol. 207: 634-640, 1964.

13. Nash, Clinton B., Alley, James H., and Manley, Emmett S.: The suppression of ouabain toxicity by oxytocin and reserpine. Toxicology and Applied Pharmacol. 6: 163-167, 1964.

14. Nash, Clinton B.: Alteration of vasopressin tachyphylaxis by reserpine pretreatment. Arch. Int. Pharmacodyn. 153: 93-95, 1965.

15. Boyajy, Louis D. and Nash, Clinton B.: Influence of reserpine on arrhythmias, inotropic effects, and myocardial potassium balance induced by digitalis materials. J. Pharmacol. 141: 193, 201, 1965.

Papers (continued)

16. Breese, George R. and Nash, Clinton B.: Cardiovascular interactions between acutely administered reserpine and mephentermine. British J. Pharmacology 25: 621-630, 1965.

17. Manley, Emmett S., Woodbury, Robert A., and Nash, Clinton B.: Cardiovascular responses to epinephrine during acute hypercapnia in dogs: Effects of autonomic blocking drugs. Circulation Research 18: 573-584, 1966.

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20. Nash, Clinton B. and Carter, J. Roland: Hemorrhagic myocarditis and cardiovascular collapse induced by catecholamine infusion. Arch. Int. Pharmacodyn. 166: 172-180, 1967.

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22. Fitzwater, J. E., White, R. P., and Nash, C. B.: Selective blockade by mephentermine of reserpine-induced serotonin depletion. Experientia 24: 698-699, 1968.

23. Smith, R. D. and Nash, C. B.: Effects of the beta adrenergic blocking agents, propranolol, Ko592, and MJ-1999 on phenoxybenzamine blockade of norepinephrine. Arch. Int. Pharmacodyn. 181: 208-217, 1969.

24. Nash, Clinton B. and Smith, Ronald D.: Alteration of norepinephrine responses in the dog by dual adrenergic blockade. European J. Pharmacol. 8: 310-314, 1969.

25. Nash, Clinton B.: Noradrenaline reversal by phenoxybenzamine. Pharmacological Research Communications 1: 423-429, 1969.

26. Duncan, R. J. and Nash, C. B.: Effects of the Rauwolfia alkaloids, ajmaline, tetraphyllicine, and serpentine, on myocardial excitability. Arch. Int. Pharmacodyn. 184: 355-361, 1970.

27. Nash, C. B. and Smith, R. D.: Blood sugar responses to epinephrine in the dog in the presence of dual adrenergic blockade. European J. Pharmacology 17: 34-38, 1972.

28. Smith, R. D. and Nash, C. B.: Ventricular Function Curve Analysis of Equiantiarrhythmic Doses of 3 Beta Blocking Agents. Submitted for Publication, 1972.

29. Duncan, R. J. and Nash, C. B.: Dose-Response Effects of Quinidine on Electrophysiological Properties of the Heart. Arch. Int. Pharmacodyn. 199: 358-367, 1972.

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2. Woodbury, R. A., Davis, F., and Nash, C. B.: Influence of thiopental sodium anesthesia and of pentobarbital sodium anesthesia upon the cardiac output of the dog. Circulation 12: 791, 1955.

3. Nash, C. B., Davis, F., and Woodbury, R. A.: The effect of pentobarbital sodium anesthesia on cardiac output in the dog. J. Pharmacol. Exp. Ther. 113: 41, 1955.

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5. Nash, C. B., Davis, F., and Woodbury, R. A.: Influence of certain anesthetic agents on vagal control of heart rate. Fed. Proc. 14: 373, 1955.

6. Nash, C. B., Drinnon, Virginia, and Clark, Byron B.: Cardiac actions of isoxsuprine. Fed. Proc. 17: 337, 1958.

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10. Woodbury, R. A., and Nash, C. B.: A new concept of the interrelationships between vasodilator receptors. Biochem. Pharm. 8: 117, 1961.

11. Nash, Clinton B.: Vasopressin tachyphylaxis and reserpine pretreatment. The Pharmacologist 4: 150, 1962.

12. Boyajy, Louis D. and Nash, Clinton B.: Influence of fibrillatory and positive inotropic responses to ouabain. Fed. Proc. 22: 185, 1963.

13. Breese, G. R. and Nash, Clinton B.: Observations on reserpine pressor responses induced by mephentermine. Fed. Proc. 23: 458, 1964.

14. Carter, J. Roland, Nash, Clinton B. and Woodbury, Robert A.: Cardiovascular collapse and myocardial lesions resulting from epinephrine infusion. The Pharmacologist 6: 174, 1964.

15. White, R. P., Cobb, D. P., Breese, G. R., and Nash, C. B.: Acute brain syndrome induced by reserpine-mephentermine. The Pharmacologist 7: 142, 1965.

16. Duncan, Robert J. and Nash, Clinton B.: Effects of some Rauwolfia alkaloids on electrophysiological parameters of the heart. Fed. Proc. 27: 658, 1968.

17. Smith, R. D. and Nash, C. B.: A comparative study of three beta adrenergic blocking agents in the anesthetized dog. The Pharmacologist 10: 299, 1968.

Abstracts (continued)

18. Nash, C. B.: The selective antagonism of epinephrine toxicity. Toxicology & Appl. Pharmacol. 12: 297, 1968.

19. Nash, Clinton B.: Dual adrenergic blockade of cardiovascular and metabolic responses to norepinephrine infusion. Fed. Proc. 28: 611, 1969.

20. Smith, R. B. and Nash, C. B.: Effects of equiantiarrhythmic doses of LE-46, Ro592, and propranolol on ventricular function curves in dogs. The Pharmacologist 13: 301, 1971.

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CURRICULUM VITAE

SORELL L. SCHWARTZ

NAME: Sorell Lee Schwartz

PLACE AND DATE OF BIRTH:
Buffalo, New York
September 13, 1937

ADDRESS: 11504 Charlton Drive
Silver Spring, Maryland 20902

EDUCATIONAL BACKGROUND:

Undergraduate: B.S. (Pharmacy), University of Maryland, 1959.

Graduate: Ph.D. (Pharmacology), Medical College of Virginia, 1963 .
Title of Doctoral Thesis: Studies on the Mammalian Degradation of the Pyrrolidine Ring of Nicotine.

PRIMARY POSITIONS:

1968-Present - Associate Professor of Pharmacology, Georgetown University Schools of Medicine and Dentistry, Washington, D.C.

1966-1968 - Head, Pharmacology Division, U.S. Naval Medical Research Institute, National Naval Medical Center, Bethesda, Maryland

1963-1966 - U.S. Naval Officer, Active Duty - Assignment as Pharmacologist Experimental Medicine Division, U.S. Naval Medical Research Institute, National Naval Medical Center, Bethesda, Maryland

1959-1963 - Graduate Fellow in Pharmacology, Medical College of Virginia, Richmond, Virginia

1958-1959 - Assistant in Chemistry, University of Maryland, University College, Baltimore, Maryland

COLLATERAL POSITIONS:

1969-Present - Member, Research Committee, Georgetown University

1964-1969 - Member, Naval Investigational Drug Review Board, Bureau of Medicine and Surgery, Navy Department, Washington, D.C.

1967-1968 - Navy Liaison Representative, National Institutes of Health Pharmacology - A, Study Section

RESEARCH BACKGROUND:

Present

Endocytic and exocytic processes of macrophages. Effects of tobacco smoke constituents on microbicidal and immune function of macrophages. Endocytic and exocytic effects of amines on macrophages.

Previous

Nephrotoxicity of chelating agents. Pinocytosis as a cause of histologic changes in kidney.

Hyperbaric pharmacology. Action of drugs in hyperbaric helium oxygen atmosphere in relation to saturation diving

Pharmacology of sharks. Effects of drugs on the sympathetic nervous system of nurse and lemon sharks

Mammalian metabolism of nicotine

ORGANIZATION MEMBERSHIPS:

American Society for Pharmacology and Experimental Therapeutics
Society of Toxicology
The Society of Sigma Xi
American Association for the Advancement of Science

MILITARY:

Lieutenant Commander, Medical Service Corps
U.S. Naval Reserve, Member, Naval Reserve
Research Company 5-10.

1. Schwartz, S.L., E.R. Bowman, and H. McKennis, Jr., Metabolism of (-)-cotinine in the rat. Virg. J. Sci., 12, 196 (1961).

2. McKennis, H., Jr., L.B. Turnbull, S.L. Schwartz, E. Tamaki, and E.R. Bowman, Demethylation in the metabolism of (-)-nicotine, J. Biol. Chem., 237, 541 (1962).

3. McKennis, H., Jr., L.B. Turnbull, E.R. Bowman, and S.L. Schwartz, Corrected structure of a ketoamide arising from the metabolism of (-)-nicotine, J. Am. Chem. Soc., 84, 4598 (1962).

4. Schwartz, S.L., and H. McKennis, Jr., Metabolism of (-)-cotinine to a keto acid. Fed. Proc. 21, 183 (1962).

5. Schwartz, S.L., E.R. Bowman, and H. McKennis, Jr., Intermediates in the metabolism of (-)-nicotine to 3-pyridylacetic acid. Abstr. of the 16th Tobacco Chemists Research Conference, Sept. 26-28, 1962.

6. Schwartz, S.L., and H. McKennis, Jr., Studies on the degradation of the pyrrolidine ring of (-)-nicotine in vivo, Formation of γ-(3-pyridyl)-γ-oxobutyric acid., J. Biol. Chem., 238, 1807, (1963).

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9. McKennis, H., Jr., S.L. Schwartz, and E.R. Bowman, Alternative routes in the metabolic degradation of the pyrrolidine ring of nicotine. J. Biol. Chem. 239, 3990 (1964).

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14. Schwartz, S.L., and J.F. Borzelleca, Adrenergic Responses in the Shark. Toxicol. Appl. Pharmacol., 12, 307 (1968).

15. Schwartz, S.L. and J.F. Borzelleca, Adrenergic blood pressure responses in the shark. Science 163, 395 (1969).

16. Lotke, P.L. and S.L. Schwartz, Studies on the functional and biochemical changes during kidney preservation. Surgery, 67, 488 (1970).

17. Schwartz, S.L., C.B. Johnson and P.D. Doolan, Study of the mechanism of EDTA-induced renal vacuologenesis in the rat . Comparison of the cellular activity of the calcium and chromium chelates. Molecular Pharmacology 6, 54, (1970).

18. Virgillio, R.W., L.D. Homer, C.M. Herman, G.S. Moss, B.D. Lowery and S.L. Schwartz, Comparison of inulin and EDTA spaces in the nephrectomized baboon. J. Surgical Research 10, 370 (1970).

19. Bond, J.C. and S.L. Schwartz, Inhibition of endocytosis in macrophages by nicotine, Fed. Proc. 29, 412 (1970).

20. Hanasono, G.K., J.L. Hollis, and S.L. Schwartz, A pressure vessel for biochemical studies under hyperbaric conditions. Analytical Biochemistry 34, 470 (1970).

21. Schwartz, S.L., and C.B. Johnson, Pinocytosis as the cause of sucrose nephrosis. Nephron, 8, 246 (1971).

22. Bond, J.C., and S.L. Schwartz, Drug-induced release of pinolysosomal contents from peritoneal macrophages, Pharmacologist 13: 236 (1971).

BIOGRAPHICAL SKETCH

Ronald Carlyle Shank
Assistant Professor of Food Toxicology
Born: December 13, 1937 at San Jose, California
Male citizen of U.S.A.

Academic Degrees

1959	Sc.B.	Food Technology - Mass. Inst. of Tech., Cambridge, Mass.
1961	Sc.M.	" " " " " "
1965	Ph.D.	Food Toxicology - " " " " " "

Major Research Interests

Toxicology of food-borne substances; basic mechanisms of toxic actions.

Research and Professional Experience

1967 - Assistant Professor of Food Toxicology, Department of Nutrition and Food Science, Massachusetts Institute of Technology.

1967 - 1970 Field Director of Massachusetts Institute of Technology Mycotoxin Research Program, Bangkok, Thailand; established cooperative research arrangements with the Ministry of Public Health, the Faculties of Science, Medicine, and Public Health of Mahidol University, the provincial governors, hospital directors, and health offices, the municipal officers, and village chiefs in Thailand, the University of Hong Kong, and the Institute for Medical Research, Kuala Lumpur, Malaysia; established research laboratories and trained 33 technicians, directed research in mycology, analytical chemistry, bioassay, and epidemiology and administrated all aspects of the field program.

1967 - 1970 Visiting Lecturer in Biochemistry, Faculty of Science, Mahidol University, Bangkok, Thailand.

1965 - 1967 Postdoctoral Training Fellow (National Cancer Institute) (Drs. John M. Barnes and Peter N. Magee); experimental studies on the effects of cycasin and dimethylnitrosamine on induced hepatic protein synthesis, Medical Research Council Laboratories, Toxicology Research Unit, Carshalton, Surrey, ENGLAND.

1964 - 1965 Research Associate in Food Toxicology, Department of Nutrition and Food Science, Massachusetts Institute of Technology

1959 - 1964 Research Assistant in Food Toxicology, Department of Nutrition and Food Science, Massachusetts Institute of Technology.

Professional Activities

Membership in:

Society for Environmental Geochemistry and Health
Society of Toxicology
American Association for the Advancement of Science
Sigma Xi

1971 - Interdepartmental Group on Nitrates-Nitrites and Nitrosamines, U.S. Food and Drug Administration.

1972 - Associate Editor: *Plant Foods for Man*, Newman Ltd., London

International and Related Activities

International Agency for Research on Cancer (WHO) Conference on Role of Aflatoxin in Human Disease, Lyon, France, October 27 - November 1, 1968 (participant).

International Symposium on Mycotoxins in Human Health, Pretoria, South Africa, September 2-4, 1970 (speaker).

Symposium on Current Problems in Foodborne Environmental Chemicals of Health Significance, American Chemical Society National Meeting, Boston, Mass., April 12, 1972 (speaker).

Symposium on Mycotoxins and Mycotoxicoses, University of Missouri, Columbia, Mo., May 9, 1972 (speaker).

BIOGRAPHICAL SKETCH
OF
HENRY STEVENS

Personal

Born: February 11, 1896, St. Albans, Vermont

Married: 1926

Children: Two

Home address: 5116 Brookview Drive
Westhaven
Washington, D. C. 20016
Home phone: (301) 229-8621

Education

University of Wisconsin — B.S. 1921, M.S. 1923

George Washington University — Ph.D. 1934
Major: Biochemistry.

Professional Appointments

Consultant on Allergens, Select Committee on GRAS Substances, LSRO/FASEB, Washington, D. C. 1972-
Biochemist, Allergens Lab., Agricultural Research Service, U. S. Dept. of Agriculture, 1936-1966
Research fellow, Bureau of Chemistry and Soils, U. S. Dept. of Agriculture, 1929-1936.
Asst. pathology & bacteriology, Rockefeller Institute, 1926-1929.
U. S. Army 1918-1919.

Societies

American Association for the Advancement of Science
American Chemical Society
Society for Experimental Biology and Medicine
Washington Academy of Sciences
American Academy of Allergy

Awards

W. F. Hillebrand Award, 1951.

Publications
of
Henry Stevens
1939 - 1964

1. The Chemistry of Allergens. I. Isolation of an Active Fraction from Cottonseed: J. Allergy, 10 113-129 (1939)
Spies, J. R., Bernton, H. S., and Stevens, H.

2. Sensitization of Guinea Pigs to Cotton Linters and House Dust Extracts: Proceedings of the Society for Experimental Biology and Medicine, 40 457-460 (1939)
Coulson, E. J., and Stevens, Henry.

3. Significance of Cottonseed Sensitiveness: J. Allergy, 11 138-146 (1940)
Bernton, H. S., Spies, J. R., and Stevens, H.

4. The Chemistry of Allergens. II. Isolation and Properties of an Active Protein Component of Cottonseed: J. Am. Chem. Soc., 62 1420-1423 (1940)
Spies, J. R., Coulson, E. J., Bernton, H. S., and Stevens, H.

5. The Chemistry of Allergens. III. The Solubility Behavior of an Active Protein Picrate from Cottonseed: J. Am. Chem. Soc., 62 2793-2799 (1940)
Spies, J. R., Bernton, H. S., and Stevens, H.

6. Antigenic Relationship of Cotton Linters, Dust, and Dust Precursors: J. Allergy, 11 537-556 (1940)
Coulson, E. J. and Stevens, Henry.

7. The Chemistry of Allergens. IV. An Electrophoretic Fractionation of the Protein-Polysaccharide Fraction, CS-1A, from Cottonseed: J. Am. Chem. Soc., 63 2163-2169 (1941)
Spies, J. R., Bernton, H. S., and Stevens, H.

8. The Immunochemistry of Allergens. I. Anaphylactogenic Properties of a Proteic Component of Cottonseed: J. Immunology, 41 375-381 (1941)
Coulson, E. J., Spies, J. R., and Stevens, H.

9. Evidence of the Multiplicity of Allergens and Reagins in Cottonseed Sensitiveness: J. Allergy, 13 289-295 (1942)
Bernton, H. S., Spies, J. R., and Stevens, H.

10. The Chemistry of Allergens. VII. The Nature of the Unidentified Allergens of Cottonseed: J. Allergy, 14 7-18 (1942)
Spies, J. R., Chambers, D. C., Bernton, H. S., and Stevens, H.

11. The Immunochemistry of Allergens. II. Antigenic Studies by the Dale Method of the Electrophoretic Fractionation Products of the Protein-Carbohydrate Fraction, CS-1A, from Cottonseed: J. Immunology, 46 347-365 (1943)
Coulson, E. J., Spies, J. R., and Stevens, H.

12. The Immunochemistry of Allergens. V. Comparison of the Rates of Dialysis of Crystalline Ovalbumin and of the Cottonseed Allergen, CS-1A: J. Immunology, 47 443-452 (1943)
Coulson, E. J., Spies, J. R., and Stevens, H.

13. The Chemistry of Allergens. IX. Isolation and Properties of an Active, Carbohydrate-Free Protein from Castor Beans: J. Am. Chem. Soc., 66 748-753 (1944)
Spies, J. R., Coulson, E. J., Chambers, D. C., Bernton, H. S., and Stevens, H.

14. The Immunochemistry of Allergens. VI. Anaphylactogenic Properties of a Proteic Component of Kapok Seed and the Relationship of Kapok-Seed Antigens to Cottonseed Antigens: J. Immunology, 49 99-116 (1944)
Coulson, E. J., Spies, J. R., and Stevens, H.

15. The Chemistry of Allergens. X. Comparison of Chemical and Immunological Properties of CB-1A Preparations from Domestic and Brazilian Castor Bean Pomace: J. Am. Chem. Soc., 66 1798-1799 (1944)
Spies, J. R., Coulson, E. J., and Stevens, H.

16. The Immunochemistry of Allergens. VII. A Study of the Homogeniety of Cottonseed-Globulin Preparations by Anaphylactogenic Reactions: J. Allergy, 16 176-183 (1945)
Coulson, E. J., Spies, J. R., and Stevens, H.

17. Quantitative Estimation of the Absorption of an Ingested Allergen: J. Allergy, 16 267-274 (1945)
Spies, J. R., Chambers, D. C., Bernton, H. S., and Stevens, H.

18. Allergenic and Anaphylactogenic Properties of Vaccines Prepared from Embryonic Tissues of Developing Chicks II. Anaphylactogenic Properties of Typhus-Fever Vaccines and Equine Encephalomyelitic Vaccines: J. Immunology, 53 321-342 (1946)
Coulson, E. J. and Stevens, Henry

19. The Immunochemistry of Allergens. VIII. Precipitin Formation and Passive Transfer Reactions with Allergenic Proteins from Cottonseed and Castor Beans: J. Immunology, 52 259-266 (1946)
Coulson, E. J., Spies, J. R., and Stevens, H.

20. Quantitative Studies in Anaphylaxis I. Influence of Age and Body-Weight of Guinea Pigs on the Sensitizing and Shocking Dose: J. Immunology, 61 1-10 (1949)
Coulson, E. J. and Stevens, Henry.

21. Quantitative Studies in Anaphylaxis II. The Relationship of the Shocking Dose to the Sensitizing Dose: J. Immunology, 61 11-15 (1949)
Coulson, E. J. , Stevens, Henry, and Shimp, James H.

22. Quantitative Studies in Anaphylaxis III. Effect of the Alum Adjuvant and Route of Administration on the Sensitizing Dose: J. Immunology, 61 119-123 (1949)
Coulson, E. J. and Stevens, Henry.

23. On Allergy to Cottonseed Oil: J. Am. Med. Assn., 140 1-9 (1949)
Bernton, H. S., Coulson, E. J., and Stevens, Henry.

24. The Immunochemistry of Allergens. IX. The Relationship of Carbohydrate to the Antigenic Properties of the Allergenic Protein from Cottonseed: J. Immunology, 62 171-182 (1949)
Coulson, E. J., Spies, J. R., and Stevens, H.

25. The Immunochemistry of Allergens, X. Anaphylactogenic Properties of Allergenic Fractions from Castor Bean: J. Allergy, 21 34-44 (1950)
Coulson, E. J., Spies, J. R. and Stevens, H.

26. Identification of Castor Bean Allergen in Green Coffee: J. Allergy, 21 554-558 (1950)
Coulson, E. J., Spies, J. R. and Stevens, H.

27. The Serological Relationship of Bovine Whey Albumin to Serum Albumin: J. Bio. Chemistry, 187 355-363 (1950)
Coulson, E. J. and Stevens, Henry.

28. The Chemistry of Allergens. XI. Properties and Composition of Natural Proteoses Isolated from Oilseeds and Nuts by the CS-1A Procedure:
J. Am. Chem. Soc., 73 3995-4001 (1951)
Spies, J. R., Coulson, E. J., Chambers, D. C., Bernton, H. S., Stevens, H., and Shimp, J. H.

29. The Chemistry of Allergens. XII. Proteolysis of the Cottonseed Allergen:
J. Allergy, 24 483-491 (1953)
Spies, J. R., Chambers, D. C., Coulson, E. J., Bernton, H. S., and Stevens, H.

30. The Chemistry of Allergens. XIV. Effect of Heat and pH on the Precipitin Reaction and Reagin Neutralizing Capacity of the Castor Bean Allergen, CB-1C:
Annals of Allergy, 18 393-400 (1960)
Spies, J. R., Coulson, E. J., Bernton, H. S., Stevens, H., and Strauss, A. A.

31. The Allergen Content of Castor Beans and Castor Pomace: J. Oil Chemists' Soc., 37 657-661 (1960)
Coulson, E. J., Spies, J. R., and Stevens, H.

32. Some Observations on the Immunochemistry of Dextrans: J. Immunology, 86 241-252 (1961)
Coulson, E. J. and Stevens, Henry.

33. Comparative Efficacy of Intravenous and Intraperitoneal Administration of Antiserum in Passive Anaphylaxis: Pro. Soc. Exper. Bio. and Medicine, 106 40-42 (1961)
Coulson, E. J. and Stevens, Henry.

34. The Chemistry of Allergens. XV. Inactivation of the Castor Bean Allergens and Ricin by Heating with Aqueous Calcium Hydroxide: J. Agricultural and Food Chemistry, 10 140-145 (1962)
Spies, J. R., Coulson, E. J., Bernton, H. S., Wells, P. A., and Stevens, H.

35. Ribonuclease of Bovine Milk: Serological Relationship to Pancreatic Ribonuclease: Archives Biochemistry and Biophysics, 107 336-340 (1964)
Coulson, E. J. and Stevens, Henry

CURRICULUM VITAE

WENDELL W. WEBER, M.D., Ph.D., Associate Professor

Date of Birth: September 2, 1925

Place of Birth: Maplewood, Missouri

Marital Status: Married, 2 children (Jane-11 yrs; Theodore-9 yrs)

Address: 59 West Brookside Drive
Larchmont, N.Y. 10538

Home Phone: (914) 834-3784

Business Phone: (212) 679-3200, ext. 3861

Education:

Union Public High School, Union, Missouri	H.S. Diploma	1942
Central College, Fayette, Missouri	B.A. (Chem.)	1945
Northwestern University, Evanston, Ill.	Ph.D.(Phys.Chem.)	1950
University of Chicago, Chicago, Ill.	M.D.	1959

Honors:

Career Scientist Award of the New York City Health Research Council	1965-1970
Award Renewed	1970-1975

Research and Professional Experience:

Department of Pharmacology N.Y.U. School of Medicine	Associate Professor	Sept. 1969 - to date
Department of Pharmacology N.Y.U. School of Medicine	Assistant Professor engaged in biochemical and pharmacogenetic studies on N-acetylation of drugs.	Sept. 1965 - Aug. 1969
Department of Pharmacology N.Y.U. School of Medicine	USPHS Special Fellow engaged in studies on aromatic α-keto acid reductase, part-time instructor.	Oct. 1963 - Aug. 1965

Galton Laboratory for the Study of Human Genetics, University College, London, England	USPHS Special Fellow engaged in studies of somatic and biochemical traits associated with chromosomal aberration under the supervision of Professor L.S. Penrose.	Oct. 1962 - 1963
Department of Pediatrics University of California	Resident and Chief Resident. In addition to clinical responsibilities, studies on chromosomal aberrations associated with somatic abnormalities were carried out.	June 1960 - Oct. 1962
Office of the Chief Chemical Officer, Army Chemical Center, Maryland	Operations research analyst engaged in studies pertaining to chemical, biological and radiological warfare under the direction of Professor W.A. Noyes, Jr.	June 1951 - June 1955
Department of Chemistry University of Tennessee	Assistant Professor (Physical Chemistry)	Sept. 1949 - June 1951
Department of Chemistry Northwestern University	Research Assistant, Special Projects Division, U.S. Army collaborating on design and development of instruments for detecting and counting aerosol particles under the supervision of Professor F.T. Glucker, Jr.	Sept. 1945 - Sept. 1947

Supplemental Information: Member of:

American Society of Pharmacology and Experimental Therapeutics
New York Academy of Sciences
American Society of Human Genetics
American Chemical Society
Phi Lambda Upsilon (Honorary Chemistry)
Sigma Xi
American Association for the Advancement of Science

Pharmacology and Toxicology Committee, NIGMS, NIH, July 1, 1969 to June 30, 1973.

Publications

Research Papers

1. I.M. Klotz, J. Urquhart and W.W. Weber. Penicillin-protein interactions. Arch. Biochem. 26: 420-35, 1950.

2-22. Author and co-author on 20 papers and review articles, Operations and Research Group, Office of the Chief Chemical Officer, Department of the Army, June 1955. (Titles and reprints not available because material is classified).

23. W.W. Weber, M. Grossman, J.V. Thorn, J. Sax, J.J. Chan and M.P. Duffy. Drug contamination with diethylstilbestrol. Outbreak of precocious puberty due to contaminated INH. New Eng. J. Med. 268: 411, 1963.

24. W.W. Weber, P. Mamunes, R. Day and P. Miller, Trisomy 17-18 (E): studies in long term survival with report of two autopsied cases. Pediatrics 34: 533, 1964.

25. W.W. Weber, U. Mittwoch and J.D.A. Delhanty. Leukocyte alkaline phosphatase activity in Klinefelter's Syndrome. J. Med. Genetics 2: 112, 1965.

26. V.G. Zannoni and W.W. Weber. Isolation and properties of aromatic-α-keto acid reductase. J. Biol. Chem. 241: 1340, 1966.

27. W.W. Weber and V.G. Zannoni. Reduction of phenylpyruvic acids to phenyllactic acids in mammalian tissues. J. Biol. Chem. 241: 1345, 1966.

28. V.G. Zannoni, W.W. Weber, P. Van Valen, A. Rubin, R. Bernstein and B.N. La Du, Phenylalanine metabolism and "phenylketonuria" in dilute-lethal mice. Genetics 54: 1391, 1966.

29. W.W. Weber, and S.N. Cohen. N-acetylation of drugs: isolation and properties of N-acetyltransferase from rabbit liver. Mol. Pharm. 3: 266, 1967.

30. W.W. Weber. Survival and the sex ratio in Trisomy 17-18 (E). Am. J. Human Gen. 19: 369, 1967.

31. W.W. Weber and V.G. Zannoni. Reduction of aromatic 0-keto acids by lactic acid dehydrogenase isoenzymes and aromatic α-keto acid reductase. Ann. N.Y. Acad. 151: 627, 1968.

32. W.W. Weber and S.N. Cohen. Purification and properties of N-acetyl-transferase from mammalian liver. N.Y. Acad. Sci. 151: 734, 1968.

33. W.W. Weber and S.N. Cohen. The mechanism of isoniazid acetylation by human N-acetyltransferase. Biochim. Biophys. Acta 151: 276, 1968.

34. S.N. Cohen and W.W. Weber. Acetylation of 6-sulfanilamidopyrimidines in the rabbit. Biochem. J. 111: 249, 1969.

35. M.S. Steinberg, S.N. Cohen and W.W. Weber. Acetylation of serotonin by isoniazid N-acetyltransferase. Biochim. Biophys. Acta 184: 210, 1969.

36. W.W. Weber. N-acetyltransferase (mammalian liver). Metabolism of amino acids and amines. Volume editors Herbert Tabor and Celia W. Tabor. Methods in Enzymology. Academic Press, N.Y. Vol. 17B: 805, 1971.

37. M.S. Steinberg, S.N. Cohen and W.W. Weber. Isotope exchange studies on rabbit liver N-acetyltransferase. Biochem. Biophys. Acta 235: 89, 1971.

38. W.W. Weber. Acetylating, Deacetylating and Amino Acid Conjugating Enzymes; "Handbook of Experimental Pharmacology", Eds. B.B. Brodie and J.R. Gillette, Vol. XXVIII Pt. 2, 564-583, 1971.

39. W.W. Weber. The relationship of genetic factors to drug reactions. Chapter 3 in Drug-Induced Disease, Vol. 4. Excerpta Medica Foundation, 33, 1972.

40. S.N. Cohen and W.W. Weber. Pharmacogenetics. Ped. Clin. North America 19: 21, 1972.

41. W.W. Weber. Protein binding. Adv. in Biol. of Skin 12: 61, 1972.

42. W.W. Weber. Acetylation of drugs. Chapter in Metabolic Conjugation and Metabolic Hydrolysis, Vol. 3. Ed. W.H. Fishman. Academic Press, New York, 249-296, 1973.

43. D.J. Hearse and W.W. Weber. Multiple N-acetyltransferases and drug metabolism. Tissue distribution, characterization and significance of mammalian N-acetyltransferase. Biochem. J. 131 (in press) 1973.

44. S.N. Cohen, R. Baumgartner, M.S. Steinberg and W.W. Weber. Changes in the physicochemical characteristics of rabbit liver N-acetyltransferase during post-natal development. Biochim. Biophys. Acta (in press) 1973.

45. W.W. Weber and S.N. Cohen. Absorption, distribution, excretion and response to drugs as a function of age. Handbook of Experimental Pharmacology. Eds. B.B. Brodie, J.R. Gillette and J.R. Mitchell. Springer-Verlag, Heidelberg, Vol. 28, Pt. 3 (in press) 1973.

Abstracts

1. I.M. Klotz and W.W. Weber. Penicillin-cytochrome complexes. Fed. Proc. 8: 1949.

2. W.W. Weber and P. Miller. Chromosomal anomaly associated with progressive neuromuscular weakness. Western Soc. for Ped. Res. November, 1961.

3. W.W. Weber and P. Miller. Variations in chromosome 16. Western Soc. for Clin. Res. January, 1962.

4. W.W. Weber and S.N. Cohen. Biochemical investigations of the inherited variation in drug INH acetylation. Bulletin N.Y. Acad. Med. 43: 427, 1966.

5. I.L. Firschein, W.W. Weber and K. Hirshhorn. Familial 4-5/18 translocation with multiple abnormal offspring. In Third International Congress of Human Genetics. Chicago, Ill., p. 32, 1966.

6. W.W. Weber. Purification and properties of human liver N-acetyltransferase. Fed. Proc. 26: 683, 1967.

7. W.W. Weber, S.N. Cohen and M.S. Steinberg. Species differences in the kinetic properties of the INH-acetylating enzyme. The Pharmacologist 9: 190, 1967.

8. W.W. Weber, S.N. Cohen and M.S. Steinberg. Comparative studies of the INH acetylating enzyme from animals and man. Bulletin N.Y. Acad. Med. 44: 1150, 1968.

9. S.N. Cohen and W.W. Weber. Drug-conjugating enzymes in the newborn: kinetic studies in N-acetyltransferase in the infant rabbit. Soc. for Ped. Res. May 3-4, 1968.

10. S.N. Cohen and W.W. Weber. Acetylation of 6-sulfanilamidopyrimidines by rabbit liver N-acetyltransferase. Fed. Proc. 27: 532, 1968.

11. M.S. Steinberg, W.W. Weber and S.N. Cohen. Isotope exchange studies on the INH-acetylating enzyme. The Pharmacologist 10: 191, 1968.

12. S.N. Cohen and W.W. Weber. Drug conjugating enzymes in the newborn: evidence for a "fetal" form of N-acetyltransferase in infant rabbit liver. The Pharmacologist 10: 191, 1968.

13. M.S. Steinberg, S.N. Cohen and W.W. Weber. N-acetylation of serotonin by the INH-acetylating enzyme from human and rabbit liver. Bull. N.Y. Acad. Med. 45: 502, 1969.

14. S.N. Cohen and W.W. Weber. Newborn infants of tuberculous mothers, further comments. Letter to the Editor. Pediatrics 43: 303, 1969.

15. D.J. Hearse, M.S. Steinberg and W.W. Weber. Individual variation of N-acetyltransferase activity in rabbit pineal bodies. Fed. Proc. 28: 580, 1969.

16. D.J. Hearse and W.W. Weber. The significance of N-acetyltransferase heterogeneity in the "slow" INH acetylator. Bull. N.Y. Acad. Med. 1970.

17. D.J. Hearse and W.W. Weber. Evidence for genetic and enzymic heterogeneity in the "slow" INH acetylator. Fed. Proc. 29: 803, 1970.

18. D.J. Hearse, R. Szabadi and W.W. Weber. Enzyme multiplicity in the N-acetylation of drugs. The Pharmacologist 12: 274, 1970.

19. D.J. Hearse, W.W. Weber and H.T. Pretorius. N-acetyltransferase multiplicity and drug toxicity. Am. J. Human Gen. 22: 15a, 1970.

20. W.W. Weber, D.J. Hearse and H.T. Pretorius. N-acetyltransferaase multiplicity and drug toxicity. Pharmacology-Toxicology Symp., NIGMS May 18-19, 1971.

21. R. Szabadi, G. Drummond and W.W. Weber. Further evidence of drug-acetylating enzyme multiplicity: electrophoresis of liver INH-NAT from rapid and slow acetylators. Fifth International Congress on Pharmacology 225, 1972.

22. G. Drummond, J. Miceli, R. Szabadi and W.W. Weber. The INH acetylation polymorphism: the inheritance and electrophoretic differentiation of hepatic and extrahepatic drug acetylating enzymes. Am. J. Human Gen. 24: 42a, 1972.

23. G. Drummond, J. Miceli and W.W. Weber. Thermostability variants of RBC N-acetyltransferase from rapid and slow acetylator rabbits. Fed. Proc. (accepted for FASEB meeting) April 1973.

24. G. Drummond and W.W. Weber. The electrophoretic differentiation of hepatic and extrahepatic drug acetylating enzymes. Ninth International Congress of Biochemistry, Stockholm (submitted for presentation) July 1-7, 1973.

25. W.W. Weber, J. Miceli, J. Shupack and I. Raisfeld. Contributions of renal excretion and metabolism to the biological (plasma) half-life of sulfamethazine in rapid and slow acetylator individuals. Third Pharmacology-Toxicology Program Symposium, Washington, D.C. (submitted for presentation) May 24-25, 1973.

CURRICULUM VITAE

Personal

Name: Gerald Norman Wogan
Address: 21 Hayden Lane, Bedford, Massachusetts; Telephone 275-9026
Birth: January 11, 1930, Altoona, Pennsylvania
Marital Status: Married, two children

Education

Juniata College, Huntingdon, Pennsylvania
B.S., 1951. Biology Major; Chemistry Minor

University of Illinois, Urbana, Illinois
M.S., 1953. Physiology; Biochemistry

University of Illinois, Urbana, Illinois
Ph.D., 1957. Physiology; Microbiology, Biochemistry

Academic Appointments and Experience

University of Illinois:

Teaching Assistant in Mammalian Physiology (1953 - 1954)
Teaching Assistant in Cross Human Anatomy (1954 - 1955)
Department Fellow in Metabolic Physiology (1955 - 1956)
Instructor in Physiology (1956 - 1957)

Rutgers University:

Assistant Professor of Animal Physiology (1957 - 1961)

Massachusetts Institute of Technology:

Senior Research Associate in Food Toxicology (1961 - 1962)
Assistant Professor of Food Toxicology (1962 - 1965)
Associate Professor of Food Toxicology (1965 - 1969)
Professor of Toxicology (1969-

Professional Activities

Membership in:

American Association for Cancer Research
American Society for Pharmacology and Experimental Therapeutics
American Society for Microbiology
Society of Toxicology
American Institute of Nutrition
International Society of Toxinology
American Association for the Advancement of Science
Sigma Xi

1964-1969	Trace Substances Commission, International Union of Pure and Applied Chemistry
1965-1970	Subcommittee on Food Microbiology, NAS/NRC Food Protection Committee
1966-1969	Advisory Committee on Research in the Biological and Physical Sciences, U. S. Food and Drug Administration
1967-1970	Committee on Quantitative Aspects of Environmental Carcinogenesis, International Union Against Cancer
1967	Discussion Group on Service Facilities and Reference Standards, National Cancer Institute, N.I.H.
1968	Advisory Committee for Evaluation Safety of Irradiated Ham, NAS/NRC Food Protection Committee
1968-	Subcommittee on Nonnutritive Sweeteners, NAS/NRC Food Protection Committee
1968	Task Force on Research Planning in Environmental Health Sciences, National Institutes of Environmental Health Sciences, N.I.H.
1969-71	Committee on Radiation Preservation of Food, NAS/NRC Advisory Board on Military Personnel Supplies
1970	Committee on the Evaluation of Low Levels of Environmental Carcinogens, National Cancer Institute, N.I.H.
1970	Toxicology Information Panel, NAS/NRC
1971-	Advisory Committee on Biochemistry and Chemical Carcinogenesis, American Cancer Society
1971-	Environmental Sciences Training Committee, National

Professional Activities

1971-	Editorial Board, *Applied Microbiology*
1971-	Associate Editor, *Cancer Research*
1971-	Consultant to the U.S. Food and Drug Administration
1971-	National Cancer Plan, National Cancer Institute, N.I.H. (Panel Chairman)
1972-	Carcinogenesis Advisory Panel, National Cancer Institute N.I.H.
1973-	Advisory Committee on Carcinogenesis Testing, National Cancer Institute, National Institutes of Health

International and Related Activities

UNICEF Conference on Fungal Toxicity in Peanut Products, New York, October 9, 1962.

UNICEF Conference on Aflatoxin, London, October 28-29, 1963.

International Symposium on Mycotoxins in Foodstuffs, MIT, Cambridge, March 18-19, 1964 (Chairman).

Symposium on Mycotoxins in Foodstuffs, APHA Meetings, New York, October 1964 (Chairman).

IUPAC Meetings of Trace Substances Commission: Paris, July, 1965; Hamburg, August, 1966;

Symposium on Microbial Toxins, ACS Meetings, New York, September, 1966 (Co-chairman).

International Symposium on Protein Foods and Concentrates, Mysore, India, June 27-July 4, 1967.

International Symposium on Carcinogenesis and Carcinogen Testing, Museum of Science, Boston, Massachusetts, November 8-9, 1967, (Session Chairman).

UICC Symposium on Carcinogens of Plant Origin, Bethesda, Maryland, April 8-10, 1968.

Joint Panel Meeting of U.S.-Japan Cooperative Medical Science Program, Tokyo, August 5-8, 1968.

IARC Conference on Role of Aflatoxin in Human Disease, Lyon, France, October 27-November 1, 1968 (Chairman).

UICC Committee on Quantitative Aspects of Environmental Carcinogenesis: Chicago, 1967; Kingston, 1968.

Tenth International Cancer Congress: Houston, May 22-29, 1970, (Panel Chairman).

SOS/70, International Food Technology Congress, Washington, D.C., August 1970.

International Symposium on Mycotoxins in Human Health, Pretoria, South Africa, September 2-4, 1970, (Plenary Lecturer).

International and Related Activities

IARC Working Group on Evaluation of Carcinogenic Risk of Chemicals to Man. Geneva, Switzerland, December 13-17, 1971.

Symposium on Current Problems in Foodborne Environmental Chemicals of Health Significance. American Chemical Society National Meeting, Boston, Massachusetts, April 12, 1972. (Symposium Chairman).

Conference on Host-Environment Interactions in the Etiology of Cancer in Man - Implementation in Research, Primosten, Yugoslavia, August 27-September 7, 1972.

IARC Working Group on the Evaluation of the Significance of Mouse Liver Tumor Induction in Carcinogenicity Testing. Lyon, France, October 5-7, 1972

International Symposium on Hepatotoxicity. Tel Aviv, Israel, March 25-30, 1973 (Invited Lecturer).

International Symposium on Biological Characterization of Human Tumors. Bologna, Italy, April 4-6, 1973 (Invited Lecturer).

PUBLICATIONS OF GERALD N. WOGAN

A. ORIGINAL INVESTIGATIONS

Sargent, F., II, R. E. Johnson, G. N. Wogan and A. A. Pandazi. Ernahrungseinflusse auf Osmotische Bilanz, Nierenfunktion and Homoiostase. *Klinische Wochenschrift* 37:889-898, 1959.

Solotorovsky, M., R. L. Squibb, G. N. Wogan, H. Siegel and R. Gala. The Effect of Dietary Fat and Vitamin A on Avian Tuberculosis in Chicks. *Amer. Rev. Resp. Dis.* 84:226-235, 1961.

Wogan, G. N. M. Solotorovsky, R. L. Squibb, and H. Siegel. The Serum Protein and Lipoprotein Response to Tuberculosis in Chicks Fed Various Levels of Dietary Fat. *Amer. Rev. Resp. Dis.* 84:236-241, 1961.

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Asao, T., G. H. Buchi, M. M. Abdel Kader, S. B. Chang, E. L. Wick and G. N. Wogan. Aflatoxins B and G. *J. Amer. Chem. Soc.* 85:1706, 1963.

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Wogan, G. N. Biochemical Effects of Aflatoxins. Presented at International Symposium on Hepatotoxicity, Tel Aviv, Israel, March 25-30, 1973.

CURRICULUM VITAE

Hanspeter Witschi, M.D.
professeur adjoint
Département de pharmacologie
Faculté de médecine
Université de Montréal

I- RENSEIGNEMENTS GENERAUX

Nationalité : suisse
Date de naissance : 17 mars 1933
Lieu de naissance : Berne, Suisse
Etat civil : marié, 2 enfants

II- ETUDES

Secondaires

1944-52 Maturité, type A, Gymnase de la ville de Berne, Suisse

Universitaires

1952-60 Doctorat en médecine, Universités de Berne et Genève.

III- EXPERIENCE

1961-62 Assistant, Hôpital de Tiefenau de Berne, Suisse.

1962-64 Premier assistant, Institut de médecine Légale, Université de Berne, Suisse.

1965-66 Toxicology Research Unit, British MRC, Carshalton, Angleterre.

1967 Research Associate, Département de Environmental Health, Université de Cincinnati, Ohio.

1967-69 Research Associate, Département de pathologie, Université de Pittsburgh, Pa.

1969- Professeur adjoint, Département de pharmacologie, Faculté de médecine, Université de Montréal.

IV- BOURSES

1965 Boursier du Fonds National Suisse

1966 Boursier de l'Académie Suisse des Sciences Médicales

V- SOCIETES SAVANTES ET PROFESSIONNELLES

Biochemical Society
American Association for the Advancement of Science
Fédération des Médecins Suisses
Society of Toxicology
Société Canadienne de Pharmacologie
American Association for the Study of Liver Diseases
Club de Recherches Cliniques du Québec

VI- COMITES

Editorial Board, Toxicology and Applied Pharmacology (1972)

Sub-Committee on Environmental Health, Dept. of HEW, Ottawa (1972)

Ad Hoc Consultant, Select Committee on GRAS Substances (FASEB, Bethesda, Md., USA)

Examinateur externe, Dép. biochimie, Queen's Univ., Kingston, Ont. (août 1972)

Consultant, groupe d'hépatologie, Hôpital St-Luc, Montréal

Comité d'organisation du VII Congrès International de la Biologie du Développement

2. ARTICLES ET MONOGRAPHIES

1960:

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1964:

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